San Diego Chapter Incorporated
The Voice of Construction

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Clerk's Office
California Air Resources Board (CARB)
1001 I Street
Sacramento, CA 95814

Submitted via:
1. electronically: https://ww2.arb.ca.gov/applications/public-comments
2. US Postal Service

RE: COMMENTS OF IN-USE OFF-ROAD DIESEL-FUELED FLEETS REGULATION

The Associated General Contractors of San Diego (AGCSD) would like to submit the following comments and questions about the Mobile Source Plans and the proposal to expand the Off-Road Equipment regulations. Our Association consists of over one-thousand construction industry firms that build infrastructure and commercial projects throughout California and around the country.

Before any further requirements are adopted, we believe that a full, complete, and accurate off-road emissions inventory needs to be established; the definition of "useful life" needs to be re-examined and updated, and the "real cost" of compliance needs to be calculated; not the current "regulatory cost" which fails to accurately reflect the out-of-pocket costs of compliance to the industry statewide.

CARB should also consider applying the Off-Road provisions to all sectors using off-road equipment, not just construction and mining and consider focusing the most stringent of the regulations on just those air basins that need further reductions to meet the Federal standards.

BACKGROUND

AGCSD acknowledges that California has unique and challenging air quality improvement and climate emissions reduction goals. To ensure that these goals are met while maintaining a robust and equitable economy CARB should strive to minimize undue impacts from regulation wherever possible and target emission reductions which will have the lowest impact to the sectors and locations for which they apply.

The Construction Industry has dutifully complied with the Off-Road Regulation for over a decade. It was the most expensive regulation ever adopted by CARB and our members have already absorbed the excessive cost of the regulation over this time. We also foresee significant additional costs over the next several years from the proposed regulation as it is currently written. Unfortunately, without waiting for the emission reductions of the current Off-Road Diesel Regulation to be fully realized CARB is introducing amendments to the regulation which will layer significant new regulatory costs on top of those already in place.

The equipment we use is critical to every new construction project in California. Any additional increase to the cost of regulatory compliance to our members will inevitably be passed down to the end users of the new construction. Construction activities are vital to California's near-term climate goals and the construction industry should be sheltered from regulatory cost increases to attain these goals.

Over the last decade California has seen housing costs rise and construction of new housing has been unable to keep up with demand. California is now in the midst of an affordable housing crisis. Additional compliance costs for construction added to rising, labor, land & materials costs will make the goal of solving the crisis even more daunting.

California has set ambitious electrification goals for facilities and vehicles. The construction industry is responsible for building the renewable energy infrastructure to meet these goals in its production (new solar and wind farms), distribution (new transmission lines), storage (electricity banking facilities) and use (charging stations). Additional compliance costs for construction will add additional expense and impede California's ability to meet these goals.

Many air basins throughout California can meet federal attainment standards without additional emission reductions from off-road diesel vehicles subject to this rule. The amendments to the Off-Road Diesel Regulation place the burden of compliance on fleets statewide. Placing a compliance cost burden on fleets and operations outside air basins which really need them is unnecessary and an undue hardship. The proposed amendments may also not be the most effective emission reduction strategies for the regions which need further emission reductions.

CURRENT STATE OF THE CONSTRUCTION INDUSTRY

The construction industry in California is composed of tens of thousands of small companies. More than 90% of the companies in the state have less than 10 employees. Most are family or employee owned. They do not have the financial resources to make significant new investments in equipment.

Further construction companies retain their equipment for decades because it is often specialty equipment which gets limited use and most of it will last for decades with proper maintenance. The industry is already expending billions of dollars to comply with the existing Off-Road rule and is not able to continue this level of expenditure into the next decade. In addition, we are also required to replace our on-road trucks, our portable equipment, and our forklifts at the same time. The cumulative cost is staggering.

As previously stated, the construction industry has never fully recovered from the 2008 recession. Given the current escalation of construction material costs and equipment due to COVID, the war in Ukraine, a looming recession, and spiraling inflation, costs of compliance with the current regulation alone will force the closure of many of these companies.

ACCURATE EMISSIONS INVENTORY

Since the adoption of the original off-road regulation in 2007 and the amendments in 2010 the emissions inventory for off-road equipment has been disputed and we believe, overestimated. This is based on data submitted previously to CARB and independently by Professor Harley at U.C. Berkeley. The adjustments made at that time were arbitrary and did not take fully into account the data submitted. This has resulted in the construction industry off-road emissions reductions requirements being set much higher than necessary to achieve air quality standards.

The industry is expected to pay for the elimination of emissions that never existed in the first place. The cost to reduce these "phantom" emissions in being unfairly borne by contractors throughout the state. Further, we believe that an accurate emissions inventory will reveal that this equipment emits less than originally assumed, does not operate at the number of hours originally projected and does not operate at the engine loads originally assumed.

All those factors will reduce the actual emissions generated by the off-road fleet. In addition, CARB assumed that construction activity in California would fully recover from the 2008 recession in less than 5 years and would continue to generate emissions at their higher projected levels. Despite CARB's optimistic projections 13 years ago, the construction industry has never fully recovered from the 2008 recession. In fact, the levels of employment in the industry were still shy of the 2008 levels just before the pandemic closures. While the industry is "smaller" than it was 13 years ago, and its fleets are going to shrink dramatically over the next 5 years, it never achieved the emission levels anticipated in the ensuing years.

We believe an up-to-date emissions inventory will support a much lower emission contribution from our industry. Based on the data we received from CARB and analyzed in 2018 it was estimated by an industry coalition that over 35% of the off or road equipment in California will have to be retired between now and 2027 to meet the fleet averages established by the current regulation. Essentially all the Tier 0 and Tier 1 machines will need to be retired, excepting a small percentage of low use remaining, and over two-thirds of the Tier 2 will also need to be retired during this same timeframe. This will have a dramatic effect on the levels of emissions attributed to the construction industry beyond the significant reductions already achieved by the industry's cleaner fleets. That transition needs to be fully analyzed as part of any emissions modeling being conducted by CARB.

USEFUL LIFE DEFINITION

Construction equipment is built to last for decades. The engines with proper maintenance can also last for many, many years. Typically, the business model for construction companies in California is to purchase used equipment and/or rebuild older equipment to operate at competitive rates. In many cases it is cost effective to repower equipment with newer engines rather than to buy a completely new piece of equipment.

The current useful life definition does not reflect that reality. It is focused on engine life and does not reflect the durability of off-road equipment. The shorter useful life definition also masks the real cost of compliance by removing from CARB's cost calculation any equipment that is beyond the arbitrary useful life definition. This paints an unrealistic picture of the industry's ability to afford the compliance requirements and generates different compliance responses than anticipated by CARB. CARB's useful life definition is an inaccurate representation of the true useful life of this equipment.

It also artificially reduces the "real" cost of the regulation by artificially eliminating equipment value from the calculation. Finally, this equipment is an "asset" carried on the books of a company to provide collateral for bonding purposes. That enables a company to bid for work based on the "bondable" capacity of the firm. Even if the asset is never used it provides a financial benefit to the company. For that reason, many companies retain equipment in their fleets and registered with the DOORS program even though they are seldom used.

REAL COST TO INDUSTRY

Tier 4 final construction equipment is very expensive, much more so than CARB estimated in 2007. A new scraper can cost upwards of $2 million dollars. Very few companies can afford that kind of investment. Repowering an existing twin-engine scraper with Tier 4 final engines can cost $750,000 or more. Those are hard dollar costs to construction companies.
If the equipment being replaced or repowered is beyond CARB's definition of useful life, according to CARB's cost methodology, those costs are inappropriately excluded from CARB's stated cost of compliance.

As a consequence, the industry's calculation of the real cost of compliance with the current Off-Road rule is in the $6 to $20 billion dollar range and CARB's estimate is at an unrealistic $600 million. Notwithstanding CARB's math, the real cost is what drives compliance decisions, and it is the reason that we project a massive reduction in the fleet and the emissions from that fleet over the next 5 years.

Replacement of any of these machines will require financing. This requires good credit track records, and an established profitable financial history. However, with most of the construction industry still struggling since the 2008 recession, many companies, especially small and medium size fleets, will not qualify based on their financial history, and thus will be forced to downsize or shut their doors to avoid costly fines. The heavy financing that will be necessary for compliance will also adversely affect a company's bonding capacity.

CARB must also realize the current DOORS fleet size is being artificially maintained by early turnover credits and low-use definitions as fleets approach the final compliance deadlines. Most of the Tier 0, 1 and 2 equipment will have to be retired and will not likely be replaced within the next 5 years at today's costs. To meet the final fleet average, for machines in the 175 – 750 HP range fleets will have to have an equivalent size Tier 4 final engine for every Tier 3 engine in the fleet. For nearly all fleets, there is no ability to maintain any older engines in the fleet and still meet the required fleet averages. Due to the costs of new Tier 4 Final equipment, it will severely limit the industry's ability to grow the fleet and leave a much cleaner and smaller fleet than CARB is currently projecting.

AMENDMENTS TO IN-USE OFF-ROAD DIESEL-FUELED FLEETS REGULATION

Beyond these three critical issues, emissions inventory; useful life definition and real cost of compliance: There are several other concerns and questions we have about the concepts being floated to extend and expand the off-road regulation beyond the current compliance deadlines.

First, we want to ensure the concept of "Tier 5" is not integrated into any amendments to the regulation. Given that there are only two air districts in the country that would benefit from such an engine it is unlikely that manufacturers would see much of a market to justify the development costs for such an engine with so limited a market. It would also undoubtedly be an extremely expensive engine.

Instead, far more emission reductions would be achieved by removing Tier 0, 1 and 2 engines from other unregulated industry sectors as aggressively as they are being removed from construction. Banning those Tiers in construction but still allowing them in other sectors is self-defeating.

An alternative might be to use incentive dollars to purchase early retirement of older construction equipment as is done currently with older agricultural equipment. CARB could monetize credits voluntarily surrendered to CARB or monetize voluntary retirements of Tier 0, 1, and 2 with no accompanying turnover credit. Or pay fleets $XXX per retired horsepower which they don't need to comply with the regulation.

Second, we cannot agree to the timeline for the operational backstop on old equipment. The proposed dates do not allow the current regulation turnover beyond the deadlines of 1/1/2023 for large and medium fleets and 1/1/2028 for small fleets to run its course in accordance with 2449(d)(9). Many fleets will still be legally turning over Tier 0, Tier 1 and even Tier 2 machines several years beyond the deadline while still legally operating these machines beyond 1/1/2023 (and 1/1/2028 for small fleets) as allowed under the current regulation. Your proposal to disallow operation of Tier 0 machines for large fleets beyond 1/1/2024 defeats the whole concept of carryover credits for those fleets and would require a premature retirement of those machines for those fleets that maintained carryover credits.

Companies have already planned their budgets and compliance well into the future under the current regulation requirements. To change this midstream would conflict with the intent of the current regulation and it would place an undue burden on these companies that are already struggling with the cumulative costs of compliance with the current off-road regulation and the on road and portable regulations. Any outright ban on Tier 0 or Tier 1 for fleets should not occur any sooner than 5 years beyond the current regulation's deadlines of 2023 and 2028 respectively for large/medium and small fleets.

FORCED TURNOVER

AGCSD is concerned about the massive reduction in the construction fleet as the current regulation reaches its final fleet average between 2023 and 2026. Turnover should be allowed to run its course as provided under the current regulation. Fleets did their multi-year planning based on that commitment from CARB.

Circumventing the original turnover provisions/carryover credits by prematurely banning all Tier 0 in large fleets in 2023 is unworkable. Any additional forced turnover For Tier 0 and 1 should begin in 2026 and proceed at a reasonable rate of perhaps 20% per year. Tier 2 turnover could begin in 2028 with a five-year phase out. For small fleets it could begin in 2031.

CARB is now proposing to tell large fleets they must prematurely get rid of all their Tier 0 at one time in 2023; just one year after the carryover credits are taken away. Instead, they should be allowing at least 3 to 4 years after 1/1/2023 to see how the current regulation plays out.

As stated previously we know it will eliminate a great portion of the Tier 0 and Tier 1 from large and medium fleets by about 2026. A ban on large and medium fleets on 1/1/2026 and 1/1/2027 for Tier 1 falls in line with this reasoning. If a large or medium fleet still has Tier 0 or Tier 1 in their fleets after those dates, they would still be able to use the horsepower towards their required turnover, but they would be restricted after those dates to operate the equipment. Similarly for Tier 2, we would suggest that large and medium fleets have the same deadline, so we would propose that date be 1/1/2029. As for small fleets, we would suggest a Tier 0 ban on 1/1/2029 instead of 1/1/2028.

BAN ON NEW PURCHASES

Banning Tier 3 purchases in 2023 is too early. We would propose 2028 for large and medium fleets and 1/1/2030 for small fleets. This would still allow for Tier 3 repowers, and it would still allow contractors to manage construction jobs efficiently in the selection of the right equipment for each job. It would also work better with the small fleets to allow more time between the ban on Tier 2 in 2023 and their fleet average of Tier 3 by 2025.

All size fleets should not be banned from repowering existing equipment to Tier 3. For medium and large equipment, Tier 3 repowers are still the only real option. Beyond 2025, small fleets should still have the opportunity to purchase and again, just as important, they too should still have the ability to repower with Tier 3.

On the concept of banning Tier 4 Interim – this is unacceptable and must be discarded. The regulation was spawned by the need to remove PM (the whole concept of airborne toxic control measures). Tier 4 Interim for most machines (those with engines 175 – 750 HP) must meet the same level of PM as that of Tier 4 Final. While the NOx level in Tier 4 interim is higher; the NOx level is the equivalent of where fleets need to be at their end point. Any ban on Tier 4 Interim should only a minimum of 2 years after Tier 5 is available, and only if Tier 5 is readily available at that time.

For both Tier 3 and Tier 4 Interim bans this creates a severe impact on the used equipment and rental markets. This is a no go for rental. So many rental fleets will have Tier 4 Interim in their fleets and if there is a ban there will be nowhere but out of state and AG to sell these. That makes resale value of these machines less than market value and unduly financially penalizes those who comply.

LOW USE
AGCSD believes that the current low use limitation of 200 hours should be retained. There does not appear to be any justification to lower the number of hours or the 3-year rolling average. We believe that the DOORS data will reflect that this equipment is used much less than the 200-hour limit and many companies use the low-use designation to keep unused equipment in their fleets for asset management purposes unrelated to air quality.

MANDATORY RENEWABLE FUEL
Rather than a mandate this should be created as an incentive program. Currently this fuel is subsidized to hold down the cost. It is also in limited supply which will dramatically increase the cost when the subsidies end and the mandate begins. The cost per gallon could easily double or triple. Rental companies will also have no control over the fuel being used by customers. The limited supply of renewable fuel will also push up the price with such an early 2024 mandate. Finally, since renewable fuel is essentially ineffective for Tier 4 Final, a mandate will have little effect on NOx reduction.

HIRING COMPLIANT CONTRACTORS
Contractors are not interested in policing CARB'S programs. CARB needs to devise a certification program that provides compliance certificates on a machine-by-machine basis. This will be much more workable for contractors and rental companies and focuses on the equipment rather than the fleet.

FOCUS ON EXTREME NON-ATTAINMENT AREAS
As the overall emissions from this type of equipment reaches zero, it would be appropriate to focus on regulations for those air districts that cannot meet the federal attainment standards which in California is South Coast and San Joaquin. The remainder of the state will meet the standards and has no need for these onerous provisions. San Joaquin cannot meet the standards with just construction regulations alone. This equipment is widely used in the agricultural sector as well. To exempt them is counterproductive to the intent of the new regulation.

CARB should also recognize the measures within the Off-road Diesel Regulation as necessary across all economic sectors which use off-road diesel equipment, especially the bans on the purchase of vehicles with lower Tier engines. This should be done in advance of the adoption of any amendments to the Off-road Diesel Regulation. Making these measures universal statewide would recognize the inequity of regulatory burden between economic sectors within the state and correct them.

In closing, we need to point out the Off-Road rule is the single most expensive regulation impacting the construction industry. The current regulation alone will impact good paying jobs in the industry as the statewide fleet shrinks to comply with the final deadlines. Adding more aggressive requirements will only exacerbate this impact.

We look forward to a productive collaboration on the amendments to the Off-Road rule. Please feel free to contact me directly to arrange further discussions on your proposals.

Sincerely,

J M McManus

J. M. McManus
Director of Engineering Construction & Industry Relations
Associated General Contractors of America
San Diego Chapter Incorporated

mmcmanus@agcsd.org
858-731-8150