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Clerk's Office
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Submitted electronically: https://ww2.arb.ca.gov/applications/public-comments

November 7, 2022

***RE:* Comments on In-Use Off-Road Diesel Regulation**

Dear CARB Staff,

On behalf of the Associated General Contractors (AGC) of California, we are submitting comments to the California Air Resources Board (CARB) in response to In-Use Off-Road Diesel Regulation.

AGC of California is a member-driven organization that statewide consists of over 900 companies. Our members provide commercial construction services that utilize off-road equipment. We believe the construction industry is vital to the success of California. Together, our members actively create opportunities to build and strengthen our state. We are passionate about shaping policy, improving industry relationships, and developing our workforce.

AGC of California appreciates the opportunities to participate in CARB's regulatory process by submitting a comment letter to advocate on behalf of the construction industry. A summary of our concerns includes the cost of bans and transitioning fleets, renewable diesel, prime contractor requirements, an unsustainable electrical grid to meet demands and lack of power to charge zero-emission vehicles (ZEVs) on construction sites. Please read below for more information.

1. Cost of Bans and Transitioning Fleets.

AGC of California is concerned with the burdensome costs that the In-Use Off-Road Diesel Regulation will have on businesses. Banning fleets from adding Tier 3 and 4 interim engine vehicles will extremely limit the types of vehicles that can be added to one's fleet. Companies would only be able to add Tier 4 final engines or

electric as Tier 5 engines are not currently available. Tier 4 final vehicles are already difficult to obtain, and it will only become more difficult as the demand for them increases. There is a lack of available zero-emission heavy duty vehicles or an inability to repower certain vehicles. For instance, bulldozers are available in electric drive, but not in all-electric. Since hybrid vehicles have an internal combustion engine, these vehicles would still be required to phase out at the end of their minimum useful life even though they are the most eco-friendly vehicle of their kind on the current market. Additionally, there are no electric scrapers available on the market and it would be either nearly impossible or impossible to repower a scraper to a Tier 4 Final engine. AGC of California asserts that the phase out of Tier 3 be extended to at least January 1, 2026, as Tier 3 still largely represents the available equipment repower options. Furthermore, Tier 4 interim should not be banned from purchase at all as the current NOx fleet average is based on fleets meeting a final fleet average equivalent to Tier 4 interim. The ban of Tier 4 interim equipment in 2024 will be an immense burden for the owners to sell their Tier 4 interim equipment at a reduced asset value which will result in bonding and financial stability issues. We assert that the ban of Tier 4 interim equipment come no sooner than 2030.

Many of the electric off-road vehicles have significant up-front costs that would put businesses of contractors in jeopardy. For instance, gas-powered compact track loaders typically cost between $50K - $75K each; an electric equivalent, such as the Bobcat T7X Compact Track Loader will cost over $200K each, or nearly three times than that of the traditional model. New gas-powered excavators typically cost between $100K - $500K each; an electric equivalent, such as the CAT 323F Z-line electric excavator, will cost almost $700K each. Affected businesses are already strapped for cash due to previously imposed regulations mandated by CARB. Many have already spent millions of dollars upgrading their equipment to comply with previous standards; specifically, one company spent $16 million to repower 32 twin engine scrapers to Tier 4 Final. Since the “finish line” continues to be shifted further back, this renders some of the equipment various businesses purchased or repowered useless. They must now spend millions of dollars more to comply with this new amendment. The significant increase in costs will likely result in businesses either moving out of the state of California or going out of business completely. AGC of California urges CARB to understand the economic impact that this amendment will cause and to provide financial support to assist businesses during this transition. Large fleets are not currently eligible for funding except through the Carl Moyer/SOON program at the South Coast AQMD. AGC of California encourages CARB to open the Carl Moyer Funding up to large fleets in all California Air Districts. We believe that should be a part of all clean air plans going forward as the cost of repowering and/or replacement of equipment is an enormous burden on any company.

Lastly, AGC of California urges CARB to reconsider the tier phase out of Tier 0, 1, and 2 vehicles. The current regulation allowed fleets to use carryover credits until the end of 2022, after which they are required to turn over 10% of their horsepower starting with Tier 0 and Tier 1 equipment following January 1, 2023. However, this amendment demands high priority fleets to turn over all remaining Tier 0 equipment by the end of next year regardless of whether this will require retirement of more than 10%. This not only creates bonding issues for these large fleets, but it also creates issues with businesses being able to finance costly new replacements. Tier 0, 1, and 2 vehicles are seldom used, but serve as a back-up in case problems arise from the higher tier vehicles. Our members have expressed issues with their Tier 4 equipment, therefore, rely on their Tier 0, 1,

and 2 equipment to get the job done during those times. New technologies often have issues that need to be resolved, therefore, having back-up vehicles becomes extremely important in the ability of completing a project on-time and on budget. Additionally, since Tier 0, 1, and 2 vehicles are seldomly used they would not have significant negative impact on the environment. AGC of California urges CARB to exempt Tier 0, 1, and 2 vehicles from the phase-out if they qualify as low-use vehicles.

2. **Renewable Diesel.**

While AGC of California understands the benefit of using renewable diesel to reduce emissions, our members have expressed concern with this requirement. The infrastructure for renewable diesel still has some issues that need to be resolved before requiring high priority fleets to only use renewable diesel. Veolia North America conducted an energy transition deep dive and released an article earlier this year expressing the top 6 challenges renewable diesel producers face. One of the top challenges are feedstock procurement: "as the production of renewable diesel has increased, the demand for its necessary feedstocks has skyrocketed". Specifically, the price of used cooking oil is up approximately 50% and the price of cattle and sheep fat products are up more than 30% from 2020 to 2021. Not only are the increased costs of feedstocks impacting the price of renewable diesel, but also the location of distribution hubs. Since construction sites are often remote, contractors need to transport and store the renewable diesel on-site which also increases the cost. In contrast, dyed diesel is readily available in most locations, even if they are remote. Due to feedstock and transportation costs, our members have expressed that renewable diesel is approximately $2 more a gallon than dyed gasoline which makes it difficult for current projects to stay on budget. Additionally, many contractors have fuel contracts that last more than a year, thereby making a fueling change even more costly, if not infeasible.

There is also concern regarding scarce resources to make enough renewable diesel to meet future demands. Reuters state in their article, "Renewable diesel boom highlights challenges in clean-energy transition," that feedstocks are likely to become more scarce, especially as the demand for renewable diesel increases. For instance, Goldman Sachs estimates that an additional 1 billion gallons of total capacity could be added if not for issues with feedstock availability, permitting and financing. Fastmarkets mentioned in their article "Biofuel feedstocks supply and demand – two key challenges," that there are feedstock supply limitations due to the unprecedented demand growth from the expansion of renewable fuel production. Over the next several months, US renewable diesel capacity is forecast to double; however, that growth in capacity will surpass the total supply of fats, waste oils, and greases in the US domestic market.

While AGC of California and its members appreciate the stipulation in the draft language that provides flexibility to fleets regarding renewable diesel if it is deemed unavailable through normal refueling methods, it still poses an increased administrative burden on contractors. We believe that there should first be an incentive for early use of this fuel and then begin mandate no earlier than January 1, 2028 to allow contractors time to adjust.

Lastly, there has been recent discussion surrounding the issue of utilizing renewable diesel in colder climates. Specifically, at renewable diesel's cloud point, the fuel rapidly gels and solidifies rendering the fuel useless which can also damage the equipment and pose as a safety concern for those

operating the equipment. According to the peer-reviewed article "Biodiesel and renewable diesel: A comparison" in the Process in Energy and Combustion Science Journal, Gerhard Knothe indicates that cloud points of renewable diesel is typically between -5 and -25 or -30 degrees Celsius, or 23 and -13 or -22 Fahrenheit, dependent on the production process. In other words, some renewable diesel is rendered useless starting at 23 degrees Fahrenheit. This is concerning for areas that get well below 23 degrees Fahrenheit during winter months, such as Bridgeport, Truckee, and Mammoth Lakes. Cold flow additives do not significantly lower the cloud point because the additives are not be able to bond chemically to the fuel. However, when #1 diesel is added to renewable diesel, it does significantly lower the cloud point. While AGC of California appreciates the flexibility of exempting captive attainment areas from this requirement, we believe that it is not flexible enough. If only one vehicle from a fleet goes outside the attainment area, then the entire fleet would be subject to this requirement. We encourage CARB to change the definition of captive attainment area fleet from "in which all of the vehicles in the fleet or fleet portion operate exclusively within the following counties[…]" to "in which 50% or more of vehicles in the fleet or fleet portion operate within the following counties[…]". Additionally, AGC of California appreciates the meetings that we had with CARB to address this concern. We encourage CARB to develop an exemption allowing fleets to use a mix of diesel and renewable diesel during cold climates to ensure that companies have reliable fuel that does not cause disruptions to their work.

3. **Prime Contractor Requirements.**

AGC of California and its members are deeply concerned about the prime contractor requirements that are proposed in the updated draft language. Administrative burdens are already high due to previously established mandates. It appears that these burdens increase with every regulation that is adopted. If CARB is unable to meet these administrative requirements themselves due to a lack of available resources, it is unreasonable to assume that businesses can meet these requirements. Additionally, these requirements require contractors to essentially police the regulation which should be conducted by CARB enforcement staff. It is unacceptable to ask contractors to turn in other contractors that might not have a compliance certificate. AGC of California urges CARB to remove the prime contractor requirements as we believe that these requirements should be carried out by CARB staff.

4. **Unsustainable Electrical Grid and Lack of Power on Construction Sites.**

While AGC of California appreciates the option of delaying the tier phase out for addition of zero-emission vehicles, there are many issues associated with off-road zero-emission equipment. As previously mentioned, there is a limited availability of heavy-duty equipment that is also zero-emissions. Additionally, the California electrical grid is not ready to meet current or future demands, and there is a lack of power on remote construction sites. Therefore, in practice, this option provides little to no benefit to contractors. According to the CalMatters' article, "California's electric grid is not ready to meet climate goals," California's electrical grid was largely developed in the last century and was designed with natural gas fired generation located in urban areas, supplemented by remote hydro, nuclear, and geothermal energy (2022). The electrical grid

was not designed to accommodate phasing out urban gas-fired generation and tripling the among of energy delivered from remote wind and solar energy. Additionally, the most recent 10-year plan developed from the Public Utilities Commission does not take shutting down gas power plants into account from now to 2031. This is concerning because rolling blackouts have been increasing over the years.

On January 13, 2021, the California Independent Systems Operator, California Public Utilities Commission, and California Energy Commission released a report regarding the root-cause analysis of the mid-August extreme heat wave power blackouts. This report states that the root-cause was attributed to "extreme weather conditions, resource adequacy and planning processes, and market practices". Additionally, it states "[t]he energy markets can help fill the gap between planning and real-time conditions, but the West-wide nature of this extreme heat wave limited the energy markets' ability to do so". This remains a consistent problem within the state of California. Governor Gavin Newsom signed a Proclamation of a State of Emergency starting August 31, 2022 and lasting until September 7, 2022 allowing the use of back-up generators to reduce the strain of the electrical grid due to another extreme heat event. Pacific Gas & Electric issued numerous "flex alerts" requesting residents and businesses to conserve power during peak times to protect against blackouts. Although there was some success in preventing rolling blackouts, there were still thousands of people who lost electricity in Silicone Valley and southern and inland areas of the San Francisco Bay Area, according to the USA Today article, "California avoids rolling blackouts amid record-breaking heat wave; State issues another 'flex alert'," by Christine Fernando (2022). This demonstrates the need to have carefully thought-out regulations that take California's current resources into consideration, as opposed to initiating a regulation that is not practical.

A further demonstration that California does not have the electrical resources to meet current demand is that California is already importing approximately 30% of its power needs. Since California cannot meet the current electrical demand, how will the state meet the future demand when the ACF regulation will only increase the demand for daily charging? All in all, AGC of California urges CARB to upgrade the electrical grid as soon as possible so that energy can reliably get to consumers.

Lastly, there is no power available on remote construction sites. Infrastructure would be required for each construction project to install charging stations in order to be able to charge electric off-road vehicles. This endeavor may take several years to complete, and it would be very costly. To charge electric heavy-duty off-road equipment, DC chargers would be required. DC chargers do not exist in remote sites because hard wired, high voltage, high amperage electrical power is not available. Therefore, the only way these chargers would be functional was if they were powered by diesel generators which would be self-defeating.

Conclusion

AGC of California appreciates California Air Resources Board (CARB) for allowing AGC of California to

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comment on the In-Use Off-Road Diesel Regulation. We assert that CARB consider the comments we have expressed above. If you have any questions regarding the comments, please contact Brian Mello at 603-770-9264 (email: mellob@agc-ca.org). We appreciate the opportunity to comment and hope these concerns are addressed.

Sincerely,

Brian Mello

Brian Mello
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Associated General Contractors of California