

October 29, 2021

Advanced Clean Fleets
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814
zevfleet@arb.ca.gov

Re: Comments – Advanced Clean Fleets Regulation Proposed Draft Regulation Language – High Priority and Federal Fleet Requirements

Dear California Air Resources Board (ARB),

California Construction and Industrial Materials Association (CalCIMA) appreciates the opportunity to provide comment regarding the California Air Resources Board (ARB) 'Advanced Clean Fleets Regulation Proposed Draft Regulation Language – High Priority and Federal Fleet Requirements (Proposed ACF Requirements)', and the 'Advanced Clean Truck' regulation's 'Large Entity Reporting' requirement.

CalCIMA is the statewide voice of the construction and industrial materials industry. With over 500 local plants and facilities throughout the state, producing aggregate, concrete, cement, asphalt, industrial minerals, and precast construction products, our members produce the materials that build our state's infrastructure, including public roads, rail, and water projects; homes, schools and hospitals; assist in growing crops and feeding livestock; and play a key role in manufacturing consumer products as well, including roofing, paint, low-energy light bulbs, and battery technology for electric cars and windmills. The continued availability of our members' materials is vital to California's economy, as well as ensuring California meets its renewable energy, affordable housing, and infrastructure goals.

CalCIMA writes to express our concerns and recommendations regarding the Proposed ACF Requirements and submit queries to better understand this rulemaking and welcomes the opportunity to discuss these items in more detail with ARB's rulemaking team.

1) Inclusion of the purpose of the regulation within the regulation language

CalCIMA recommends ARB include a 'Purpose' section within the Proposed ACF Requirements to clarify the specific statutory goal(s) the regulation is designed to support as ARB has demonstrated in other heavy-duty vehicle focused regulations.

2) Limited technology applications and lacking technology assessment

CalCIMA recommends ARB to further assess alternative fuel and advanced technology vehicle applications by implementing a technology assessment inclusive of but not limited to 'bridge' technologies such as renewable natural gas (RNG) and renewable diesel (RD) that

reflect the potential future carbon intensity of each fuel and resulting life cycle emission reductions that could be achieved. BE and H2 vehicles may both be unsuitable for all categories of vehicles in the construction materials industry that operate diverse fleets of vehicles, inclusive of operating vehicles long distance, in remote areas, on difficult terrain, for extended operation limiting California's ability to achieve maximum vehicular greenhouse gas (GHG) reductions if ARB determines these to be the only technologies allowable for compliance with Proposed ACF requirements. Accordingly, quantifiably understanding how 'bridge' technologies can support GHG reductions while BE and H2 vehicular technology continues to advance may be in the state's best interest. Implementation of an alternative fuel and advanced technology assessment that considers near-term air quality benefits may conclude that allowing fleets to retain the ability to procure a "mixed fleet" of vehicles capable of responding to different demands and events, and ultimately bolster the State's long-term climate change goals. CalcIMA concludes that it would be scientifically and fiscally irresponsible to move forward with a sweeping regulation that aims to reduce GHG emissions without considering viable technology alternatives that may even better support the state's overarching emission reducing objective.

Additionally, several construction materials fleets have proactively invested in alternative fuel and advanced technology vehicles, not inclusive of BE and H2 technologies, many of which reduce NOx emission by 90 percent and can be carbon neutral supporting the state's GHG emission goals. It would be beneficial to understand how these fleets using a viable and previously ARB endorsed bridge technology already and would continue to support ARB's GHG emission goals.

3) Unclear cost of ownership estimates to regulated entities

ARB's 'Total Cost of Ownership (TCO)' analysis for diesel, BE, and H2 vehicles seem to use optimistic assumptions for capital costs of vehicles and fueling costs. Specifically, the BE truck calculations implemented by ARB do not seem to fully address burdens on long haul applications inclusive of costs related to installing charging stations, consideration for costs related to a single conventional technology vehicle needing to be replaced by multiple alternative fuel and advanced technology vehicles in order to complete comparable duty cycles, and consideration for a backup fleet of conventional vehicles to support a BE fleet in cases of grid failures. Additionally, ARB has projected that the BE truck purchase price will drop to 1.5 times the purchase price of an equivalent diesel truck in 2025, and for H2 trucks the purchase price will drop 2.5 times in three years. To provide perspective to regulated entities regarding this determination, CalcIMA recommends that ARB provide a detailed explanation of the calculations and/or a justification that lead to this determination.

Regarding H2 fuel pricing, TCO analysis includes a chart showing H2 fuel price reaching \$5/kg in 2030 and remaining at that level afterwards and references a U.S. Department of Energy (DOE) price projection. However, the DOE reference that ARB provides seems to indicate that \$5/kg is a price target in order for H2 trucks to be competitive with BE

technology. Accordingly, CalcCIMA kindly requests guidance from ARB related to the association between the DOE reference and TCO analysis.

Early action credit for early adopters of ZEV and alternative fuel equipment

Early adopters are likely to pay more for the equipment than later adopters and are more likely to experience equipment deficiencies and costly operational impacts from those deficiencies. Their efforts will support further research and development needed to improve the equipment for later adopters. The alpha and beta testers of implementation warrant benefits from their leadership. This is to say that early adopters face a high level of risk in that they are using equipment that may not be perfected which could result in equipment enduring more than typical service challenges and are also at risk of becoming obsolete. For these reasons, in order to provide equity to impacted, CalcCIMA is requesting ARB to include early action credits for all ZEV purchases prior to the first applicable deadlines.

Regarding early adopters of alternative fuel equipment inclusive of but not limited to RNG, several construction materials fleets have proactively invested in RNG providing major reductions in GHG emissions and toxic air pollutants that support California's climate change targets. As detailed within ARB's Low Carbon Fuel Standard which recognizes the full life cycle of carbon in transportation emissions, RNG firmly and robustly supports decarbonization of the transportation fuel sector. For these reasons, and because early adopters of RNG accepted financial risk to utilize a fuel previously endorsed by ARB taking action to mitigate climate change, and whereas the Governor's Executive Order N-79-20 states "clean renewable fuels play a role as California transitions to a decarbonized transportation sector," CalcCIMA is requesting ARB to include early action credits for alternative fuel vehicle purchases inclusive of but not limited to RNG prior to the first applicable deadlines.

4) Definitions – "Group 1," "Group 2," "Group 3," and "Work trucks":

Regarding definitions "Group 1", "Group 2" and "Group 3," the vehicle classifications seem very broad and inclusive of many different weight classes and applications. Accordingly, CalcCIMA would like ARB to provide guidance related to the method that will be implemented to validate fleet vehicles are categorized correctly, regarding how/why ARB determined each vehicle type to be associated with the specific groups (e.g. VIN, etc.), and clarification regarding the applicable vehicle type for each market segment identified within the 'Advanced Clean Truck Market Segment Analysis' of the 'Advanced Clean Truck' 'Appendix E: Zero Emission Truck Market Assessment.' Additionally, CalcCIMA requests for the term "Work Truck" to be further refinement to separate out specialty trucks and long-haul trucks that are not sleeper cabs also to divide up the remaining work trucks based on weight class and application, to allow truck manufacturers to stagger production schedules, increase manufacturing efficiency, and lower cost.

- 5) General requirements – Table A: ZEV Fleet Milestones by Vehicle Body Type and Year
‘Table A: ZEV Fleet Milestones by Vehicle Body Type and Year’ outline compliance requirements related to ZEV milestone percentage target dates that aim for fleets to implement either BE or H2 vehicles. It is indicated that BE vehicle applications will be more broadly available to fleets sooner than H2 applications, and that both types of applications encircle different attributes that may or not satisfy a fleet’s needs on a case-by-case basis that may include but are not limited to down time for charging, load, mileage, infrastructure needs, etc. To the extent that H2 trucks are considered as an alternative for the construction materials industry due to its higher suitability for long haul truck applications, can fleet milestones be adapted to create a pathway for fleets that determine pursuit of a more dedicated H2 fleet a best fit in order to reserve financial and fueling infrastructure related spatial resources for continued compliance that would be lost if a battery electric platform was implemented while waiting to shift to a hydrogen platform? Fleet milestone adaption could be implemented in the form of an extension in compliance with the ZEV percent requirements.

- 6) ZEV technology expertise and authentication
ARB’s expectation for fleets to independently develop ZEV and near zero emission vehicle (NZEV) technology expertise, is an unmeetable standard that would be an inappropriate regulatory threshold. CalcIMA recommends for ARB to maintain a database with this information to be provided to regulated fleets and be updated on a set schedule that fleets can base compliance on. And, requests for ARB to authenticate all ZEV and NZEV technologies that are options for regulation compliance.

- 7) ZEV available options considered in daily mileage exemption
In cases where only a single ZEV technology is available for a specific application needed to meet a compliance requirement, fleets are exposed to ZEV manufacturer decisions which can include random price hikes, unreasonable product realizations, in addition to other risks. In order to circumvent these risks, CalcIMA recommends ARB consider ZEV available options pursuant to the daily mileage exemption whereas multiple ZEV technologies must be available for a specific application that meet published performance standards inclusive of but not limited to minimum driving range between charging/fueling stops and maximum charging/fueling time per stop using a DC fast charger or equivalent in order to be a compliance requirement. The functional use of vehicles which regularly visit and service construction activities should be overtly considered. This equipment is vital to responding to disaster clean-up and is vital to reopening infrastructure which is necessary to mobilize disaster response.

- 8) Onerous and deficient requirements related to the daily mileage exemption
CalcIMA does not object to the collection of data, however the data requirement for a fleet owner to request an exemption if the fleet owner cannot identify a zero emission vehicle that can meet the daily mileage needs of an existing internal combustion engine vehicle in the fleet involves an amount of effort and difficulty that is inappropriately burdensome, while still not

directly addressing key concepts of concern related to prospective availability and feasibility of refueling infrastructure. In lieu of fleet owners, it is recommended for ARB to employ the role of identification and appraisal of applicable and verified manufacturers with commercially available equipment that meet vehicle performance standards and align with ARB rule requirements.

Additionally, based on Proposed ACF Requirement rule language, it is not clear that ARB is considering the full scope of challenges related to vehicle capabilities with fleet operational needs and avoid unintended consequences that adversely impact operations. Accordingly, CalcIMA recommends that grid capacity constraints on facilities located in remote locations are considered as it relates to the daily mileage exemption. This is to say that in order to support BE vehicle compliance with the Proposed ACF Requirements via on-site commercial charging, even with building upgrade to address electrical-distribution systems, installation of necessary infrastructure to support BE vehicle charging may be unachievable and should be a clear consideration related to the daily mileage exemption.

9) Release ACT survey data summary report

Through the recent ACT survey, ARB has large entity operational data from 2019-2021 to establish truck range variability by truck type and to address range variability in rule schedule. CalcIMA requests for ARB to release a summary report on the ACT survey data to better understand the viability of the Proposed ACF Requirements.

ARB has been working with numerous stakeholders inclusive of CalcIMA during the pre-rulemaking phase and we appreciate staff's efforts to better understand the need to accommodate the construction materials' unique operational challenges as entities transition to zero-emission truck fleets. Please contact me with any questions or concerns at (951) 941-7981 or at sseivright@calcima.org.

Sincerely,



Suzanne Seivright-Sutherland
Director of Regional Governmental Affairs and Grassroots Operations