Autocar
Always Up

December 12, 2019

VIA ELECTRONIC SUBMITTAL: http://www.arb.ca.gov/lispub/comm/bclist.php
Ms. Mary J. Nichols, Chair
c/o Clerk's Office
California Air Resources Board
1001 I Street
Sacramento, California 95814

Re: Comments of Autocar, LLC
Proposed Advanced Clean Trucks (ACT) Regulation

Dear Chair Nichols,

This letter submits comments on the Proposed Advanced Clean Trucks Regulation (the "ACT") from Autocar, LLC ("Autocar"), a small, private, U.S. vocational chassis assembler with plants located in Hagerstown, Indiana and Birmingham, Alabama. Autocar produces specialized heavy-duty vocational trucks and yard tractors used in California and across the United States to collect solid waste and recycle, sweep streets and shunt freight at warehouses, railroads and ports.

Autocar supports the California Air Resources Board's ("CARB") efforts to incent and accelerate the development of environmentally-conscious technology in heavy-duty vehicles. Autocar participated in CARB's rulemakings for Clean Transportation Initiatives, Greenhouse Gas ("GHG") and the Beneficiary Mitigation Plan, among others, and voluntarily opted-in to compliance and reporting for GHG Phase 1. We appreciate the opportunity to participate in the current rulemaking for zero-emission vehicles ("ZEVs").

Autocar submits these comments to the ACT as a small business that will be directly and adversely impacted by the ACT as currently proposed.

In supporting the spirit of the ACT, Autocar asserts that modest modifications are necessary to enable its broad adoption, fulfillment and viability. Such modifications are necessary to:

1. Ensure that small businesses selling heavy-duty trucks in California have a reasonable low-volume exemption threshold; and

2. Incent small businesses to continue to work to bring ZEVs to market consistent to statutorily-mandated small business accommodations.

Further, modifications to ACT should be made to the extent that certain of CARB's assumptions relating to small manufacturers were based on inaccurate data.

The following pages set forth Autocar's recommended actions and the context and reasoning behind them.

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I. Autocar is the Refuse Industry Leader in Alternative Fuel Vehicles.

As CARB is aware, Autocar has been a leader in refuse truck industry adoption of environmentally-supportive vehicles and technologies. In recent years, at least 90% of Autocar's refuse trucks sold for use in California were built with compressed natural gas ("CNG") engines. Autocar has built and sold more than 6,000 CNG trucks, with a majority of those vehicles produced for use in California. These trucks reach California's most disadvantaged and polluted communities, and lead to lower daily emissions from mobile sources. CNG-fueled vehicles now comprise the largest portion of Autocar's refuse truck production. No other refuse truck maker's product mix reflects a higher concentration of clean-fuel burning vehicles. And while less viable in the marketplace, Autocar also produced and sold hybrid refuse vehicles, from which the Company gained additional experience in development of lower emission vehicles.

In 2018 and throughout 2019, Autocar accelerated and made great progress in its commitment to environmentally-supportive vehicles through development of a ZEV yard tractor. The time line for bringing to market heavy-duty ZEV refuse trucks and other severe-duty applications is largely dependent on progress in heavy-duty battery development, integration with body companies and installation of refueling infrastructure. Autocar is working hard to be ready with its own pieces of the puzzle so that it can incorporate those other pieces when available. Nevertheless, as further described below, Autocar faces unique challenges.

II. Autocar is a Small Business with a High Concentration of its Sales in California.

Autocar is a "small manufacturer" under the GHG Phase 1 and Phase 2 regulations.[1] The following table illustrates Autocar's size compared to its two main competitors in the refuse truck industry:

	Autocar	Competitor A*	Competitor B*
Approximate Number of Employees	789†	105,175	28,000
Approximate Number of Production Facilities	2	54 factories in 21 countries	9 factories in 3 countries
Approximate Annual Production	3,000	226,000 trucks	158,900 vehicles

* According to posted investor materials and SEC filings.

† Includes all employees and employees of affiliates, as required under the 1,500-employee ceiling the Small Business Administration established as size criteria for a business with NAICS Code 336120, Heavy Duty Truck Manufacturing, in 13 C.F.R. §121.201. See 75 Fed. Reg. 74,152, 74,207.

Because Autocar's current products are state-of-the-art from an environmental perspective, a high concentration of its sales are to fleets and shipyards within California. In recent years, as much as 25% of Autocar's total business has been in California. Despite having massively lower overall sales volume than its competitors, Autocar has sold an average of over 500 trucks into California in the last three years, with steady growth anticipated.

[1] 40 C.F.R. §1037.150(c). See 81 Fed. Reg. 74,058. Also 17 CCR §95100-95163, generally.

III. Small Businesses will be Disproportionately Impacted by the ACT Regulations.

The ACT's ZEV production requirements and time line will impose disproportionately high burdens on a small business like Autocar, which produces small volumes of a select few product lines. The lack of product mix denies Autocar the benefit of averaging and aggregating credits. The low overall volume denies Autocar the benefit of banking credits and prevents it from spreading development and compliance costs across many vehicles. Specifically, Autocar's development and compliance costs will be concentrated within its current volume of approximately 3,000 vehicles annually. In contrast, Autocar's competitors will spread such costs across tens of thousands of vehicles and multiple product lines, and with vertical integration and robust purchasing power, the competition will gain a competitive advantage over its "small town" competitor.

A. Requirements of Small Business Consideration Were Not Met.

Autocar qualifies as a small business under the Small Business Administration size criteria that set the standard for GHG, and consistent with California's Government Code.[2] In drafting the ACT, CARB was required to determine whether the adoption of the regulation affected a small business.[3] Several statements in the Staff Report: Initial Statement of Reasons for the ACT Regulation (the "ISOR"), indicate that CARB Staff either (i) mistakenly assumed, without inquiring, that Autocar is not a small business; or (ii) mistakenly assumed, based on inaccurate data, that Autocar would qualify for the Small Manufacturer Exemption.[4] Specifically, on page IX-33, the ISOR states: "No manufacturers or fleets who are regulated under this rule are small businesses." Further, on page I-18, Staff describes that it "met with the proposed ten regulated manufacturers (Daimler, FCA, Ford, GM, Isuzu, Navistar, Nissan, PACCAR, Hino/Toyota, and Volvo) on a group and individual basis throughout the regulatory development process." Autocar is not on that list and was not contacted by CARB Staff, and Staff confirmed (just last month) that they did not expect Autocar sales would exceed 500 on-road vehicles annually based on data they had. Thus, with respect to Autocar, CARB has not met its requirement to determine whether the ACT affects small business.

The ISOR is also deficient insofar as it is required to provide a "description of reasonable alternatives to the regulation that would lessen any adverse impact on small business and the agency's reasons for rejecting those alternatives."[5] On page X-1, the ISOR states, "The Board has not identified any reasonable alternatives that would lessen any adverse impact on small business," and on page X-4, states:

> CARB staff believe that the Proposed ACT Regulation would not result in any unexpected direct cost on small businesses. With high production rates of zero-emission trucks due to the Proposed ACT Regulation, there will be many benefits in various businesses, including ZEV manufacturing industries, ZEV components suppliers, EVSE suppliers and installers, and hydrogen fuel station suppliers. Some of these businesses may fall into the small business category, such as electricians, construction companies (including infrastructure installers),

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[2] See Cal. Gov. Code §11342.610.
[3] See 1 CCR §4.
[4] Section 1963(e) of the ACT Regulation provides a Low Volume Exemption as follows: "Manufacturers that never exceed 500 annual average sales of Class 2b and greater vehicles in California for the three prior model years are exempt from the requirements of sections 1963 through 1963.5. Manufacturers that meet this exemption as of 2021 but subsequently exceed 500 annual average sales in any model year become subject to the requirements of sections 1963 through 1963.5 starting the second model year after the average annual sales exceeded the threshold." (the "Small Manufacturer Exemption")
[5] Cal. Gov. Code. §11346.2(b)(4)(B).

some ZEV manufacturers, fuel cell and battery producers, and electric drivetrain parts and components suppliers.

This reasoning is neither a description of reasonable alternatives nor an effort to lessen any adverse impact on small business; nor does it provide any reason for rejecting alternatives. Again, CARB has not met its burden of considering the ACT's effect on small business. Autocar proposes specific changes below that, if adopted, would satisfy the Board's obligation to identify impacts on small businesses, and demonstrate consideration of alternatives to lessen those impacts.

B. The Rationale for the Small Manufacturer Exemption Applies Impeccably to Autocar; However, Autocar Will Continue to Develop ZEV Regardless of Exemption.

The stated rationale for the Small Manufacturer Exemption is as follows:

> This subsection is necessary to make smaller manufacturers exempt from the ZEV sales requirement **due to investment costs to design and build ZEVs and limited sale volume.** The threshold includes a majority of the **largest manufacturers who are in a better position to recoup their investment than small manufacturers.** Staff selected 500 vehicles as the appropriate threshold with the **input of stakeholders and staff analysis** of the manufacturing industry and number of ZEVs required to be produced each year.[6]
>
> Small manufacturers may generate credits for ZEV and NZEV production and sale, which will **help support the existing market, will further develop the market supply chain, service and maintenance networks, help drive down the costs of zero-emission drivetrain components, and ultimately accelerate the adoption of zero-emission technologies in California.**[7]

As discussed above in Section II, Autocar's large competitors (with multiple product lines, enormous revenues and engineering resources, and hundreds of thousands of annual truck sales) are significantly better positioned than Autocar (with two product lines and 3,000 trucks sold per year) to comply with the ACT and earn a return on their investment. The rationale for the exemption was seemingly written with Autocar in mind, except for setting the threshold at 500 vehicles.

Autocar will continue its ZEV development regardless of whether it receives the benefit of the Small Manufacturer Exemption. The company has never been afraid of a challenge when the goal is important. However, if Autocar is unable to meet the ACT's sales requirement by 2024, it may be forced to cease sales into California. If that happens, Autocar predicts that its large refuse truck competitors will likely use credits and continue to sell diesel and gas trucks, rather than develop and sell ZEV trucks. The policies and objectives underlying the ACT will not be achieved in the refuse industry.

C. A Small Business Cannot Utilize the Credit/Deficit Flexibilities Built into the ACT Regulation.

In the ISOR, CARB Staff describes the weight class modifiers that "provide flexibility for manufacturers to produce more ZEVs in one group to avoid making a small number of ZEV sales in other groups."[8] This

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[6] Autocar is unaware, and the written record is virtually devoid, of any stakeholder input or Staff analysis underpinning the 500-vehicle threshold. Of note, Staff's initial proposal included a 1,000-vehicle threshold, and the written record does not reflect include any information or analysis that would explain Staff's decision to reduce its the threshold by one-half in its current proposal.

[7] ISOR, p. IV-9, emphasis added.

[8] Staff Report: Initial Statement of Reasons, page III-9.

construct acknowledges that certain ZEV applications will take longer than others to bring to market (or even that electrifying some vehicles will be "avoided" altogether), and assumes that all manufactures have products in multiple classes.

To the contrary, 97-99% of Autocar's production falls under the same weight class group ("All Class 8"), with a small number falling under the "Class 6-7" group. For all intents and purposes, the flexibility afforded Autocar's competitors is unavailable to Autocar and other (typically smaller) manufactures that do not have large, diverse product lines.

IV. The Nature of Autocar's Products Presents Unique Challenges, and CARB would Benefit from Transparency and Regular Reporting on Development of Vocational Custom Chassis Trucks.

Below in Section V, Autocar recommends that small business be required to report on their progress toward development of ZEVs during the period they remain below the low-volume threshold. Gathering such data would further the objectives of the Large Entity Reporting Requirement, by informing CARB about how chassis manufacturers are interacting with customers, engine manufacturers and body companies, which all play a role in ZEV development.

The manufacturing process for a refuse truck is exponentially complicated by the industry-wide practice of separate companies designing, building and installing the body onto the chassis. As a chassis manufacturer, Autocar has to design with the body in mind, but without knowing what will be the customer's selected body type, brand, weight, accessories and controls that will be installed. Many body companies in California are also small businesses, and Autocar will work closely with them to drive refuse truck ZEV development.

Autocar also does not design or manufacture its own engines, so it has to coordinate engineering with its engine manufacturer as well as the body companies. The need for such coordination and the many parties involved slow the development of new features and technology. It took Autocar, Cummins and the various body companies almost 10 years to complete the design of chassis and bodies with compatible CNG engines, accessories, controls and fuel systems.

Beyond refuse trucks, Autocar's custom chassis vocational vehicles are unique in that they do not just haul a container – they also in many cases transport and operate a multi-ton tool that pumps concrete, compacts recycling materials or cleans streets, to name a few applications. Major design changes to the power train must account for an entirely separate machine that will be installed and operated on the chassis. Development is slowed and more challenging for vocational trucks in light of the fact that they are work *tools* as well as a work *trucks*.

A reporting requirement for small businesses would provide CARB with insight into a broad range of ZEV development activities and participants. In addition to providing a status update, Autocar believes that providing CARB even greater visibility to the development process would be beneficial. For example, Autocar would gather with CARB and local body companies to demonstrate challenges and efforts toward chassis-body integration in ZEVs. Autocar would also organize a customer focus group to provide input to CARB outside of the Large Entity Reporting Requirement, on a real-time basis, to explore viable ways to accelerate adoption.

V. Suggestions for Modification of the Proposed Regulatory Action

The efficacy of the ACT is premised on providing "sufficient time for manufacturers to bring new ZEVs to the market."[9] However, not all heavy-duty truck manufacturers are created equal, and the provisions governing them must provide reasonable accommodations to enable both small and large players to comply and succeed. As explained above, failure to do so not only jeopardizes the viability of the small players, but in this case undercuts the objective of the ACT to bring ZEVs to market across all applications, as large manufacturers are able to use credits to forgo the expense and delay associated with electrifying more complicated applications. With the right amount of time, Autocar will work with body companies and end users to bring vocational ZEVs to market successfully. To bolster the effectiveness of the ACT, Autocar proposes the following modifications.

A. The Threshold for the Small Manufacturer Exemption should be Raised to a Level that Captures Small Businesses.

Although CARB Staff believed that the 500-sale threshold would provide Autocar with the exemption it needs, that assumption was inaccurate. No explanation appears in the record as to why CARB's initially proposed 1,000-sale threshold was cut in half, with the 500-sale figure first appearing in Staff's April 2, 2019 presentation.

Autocar recommends revising Section 1963(e) of the ACT as follows: "Manufacturers that never exceed **1,500** annual average sales of Class 2b and greater vehicles in California for the three prior model years are exempt from the requirements of sections 1963 through 1963.5," with other conforming changes. This will provide sufficient time for Autocar and other small manufacturers to invest the necessary resources and time to develop ZEV versions of their products.

B. Small Manufacturers should be Allowed to Opt In Early to Generate Credits.

Small manufacturers should be allowed and incentivized to opt in early to generate credits through ZEV sales. Further, small manufactures should be able to generate credits through the sale of off-road yard tractors, in addition to on-road yard tractors.

C. Small Manufacturers should Provide Semi-Annual Updates on their ZEV Development Progress.

So long as any manufacturer that is included in the scope of the ACT remains exempt under the Small Manufacturer Exemption, such manufacturer should be required to provide semi-annual reports on their progress toward ZEV development, including such information as time lines and stage of development by product line, number of ZEVs produced, status of pilots and demos, engine manufacturer interaction, body company involvement and customer outreach efforts.

[Letter continues on next page.]

[9] ISOR, p. ES-6.

VI. Conclusion

Autocar thanks CARB for the opportunity to submit these comments for consideration. The ACT has significant consequences for Autocar and other small businesses, and Autocar believes that its proposed revisions are appropriate and fulfill the ACT's policy objectives. Autocar looks forward to continuing its environmental leadership as it advances toward development and sale of ZEVs across its products and applications.

Please feel free to contact me to discuss these comments. We look forward to hearing from you.

Sincerely,

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