Liane Randolph, Chair

California Air Resources Board

1001 I Street

Sacramento, CA 95814

RE: Comments on Proposed 2040 100% ZEV Sales Requirement and Advanced Clean Fleets Rule

Dear Chair Randolph and Members of the Board,

In 2020, the Volvo Group made a commitment to having 100% of its product sales being fossil free by 2040, including a nearer term goal of 35% of product sales being zero-emission by 2030.  We have more than 5,000 electric transit buses in service throughout the world and have been selling heavy-duty battery electric trucks in Europe since 2019. In the United States, we have Class 8 battery-electric tractors and refuse trucks as well as compact construction equipment all being used in customers’ commercial operations.  In addition to batteries, we recognize that hydrogen fuel cells will be needed to power electric drivelines for heavy transport and demanding long-haul applications and we have formed a joint venture with Daimler Truck to accelerate the development of this technology.

As such, the Volvo Group supports CARB’s interest in reducing greenhouse gas and NOx emissions in the state of California as well as the desire to accelerate the introduction of HD ZEVs in the marketplace as a means of achieving its goals, and we appreciate the opportunity to comment on the Proposed 2040 100% ZEV Sales Requirement Advanced Clean Trucks amendment (ACT+) and Advanced Clean Fleets Rule (ACF) proposals by the California Air Resources Board.

**ACF must align with the ACT**

**Exemptions**

During the Advanced Clean Fleets workshop on September 9th, 2021 CARB heard from many fleets about their concerns regarding lack of exemptions from the proposed ACF requirements due to reasons beyond their control. In some cases, the need was based on operational requirements, such as water district vehicles recently required to be working onsite in the field for four days due to emergency outages, where charging would not be possible. Another example of the need for fleet exemptions was the lack of charging infrastructure for either owner/operators of drayage vehicles that were parked overnight at home, and the need for truck stops providing overnight charging infrastructure would increase the parking lot size required by 5-10 times. These examples are not all-inclusive, and Volvo notes that the proposed regulation language does include some exemptions, for example for emergency responses up to 25% of fleet for electricity, natural gas, water, and wastewater services fleets; however, the ability of a fleet to secure an exemption does not mean that a manufacturer would have the ability to provide a non-ZEV to a fleet without a corresponding manufacturer exemption for that specific vehicle.

The Volvo Group agrees that it will be necessary to allow fleets the ability to gain an exemption, either as an exemption for specific vehicle types, or as through an application process for an exemption by Executive Order. Additionally, Volvo feels it will be necessary to also provide manufacturers with the ability to sell an exempted vehicle without generating an equivalent deficit with respect to a manufacturer’s Advance Clean Trucks (ACT) balance.

**Credit scaling across vehicle categories or types**

The Volvo Group is concerned with CARB’s proposal to allow fleets to meet their purchase requirements without consideration of vehicle category or type. In the case of a fleet with vehicles in the Class 4-5, Class 6-7, and Class-8 Trucks categories, a fleet would be credited the same for a Class 4 ZEV as they would for a Class 8 Truck ZEV and could meet their requirements by purchasing all Class 4 vehicles; whereas, a manufacturer must use a multiplier to move credits between specific vehicle categories, so the sale of one Class 4 ZEV would offset one-half of a Class 8 Truck. In the case of a fleet with Class 4-8 Trucks and Class 7-8 Tractors, the fleet could meet their tractor requirements by purchasing a Class 4-8 Truck, but a manufacturer cannot because they must meet their tractor requirements with tractor credits only. Lastly, a fleet can purchase an NZEV and be credited for a ZEV, while a manufacturer gets only a percentage of the full credit.

So as not to make it more difficult for manufacturers to comply with their requirements under the ACT, Volvo requests that the ACF and ACT be aligned with regards to credit movement and scaling, especially with respect to Tractors, where we feel it necessary to maintain the flexibility for fleets while allowing for manufacturers to utilize Truck credits to meet some of their Tractor requirements when necessary.

**ACT+ 100% 2040**

CARB’s ACT+ proposal calls for a step-function to 100% Heavy-duty ZEV sales in 2040, where the previously finalized 2035 manufacturer sales requirements stay constant through 2039 and the 2040 requirement increases to 100%. The Volvo Group supports the 2036-2039 requirements remaining at the 2035 levels to provide sufficient flexibility to meet the jump to 100% ZEV sales, but is concerned that the 2040 100% requirement does not consider applications that may still not be suited to electrification and may be best suited to internal combustion engines which utilize carbon-neutral fuels.

CARB staff has continually stated the ZEV targets were given as 100% ZEV fleet *where feasible* by 2045for “all other trucks”, a catch-all for a myriad of applications not specifically called out for 100% fleet penetration in earlier years (see Slide 9 of the staff presentation for the September 9th ACF workshop). Volvo sees this conflict as an issue that can and should be resolved through the inclusion of an allowance for carbon-neutral fuels and low-emission engines. Short of some allowance, any Heavy-duty vehicle in the fleet that fell into a non-feasible application in 2045 would be a 2039 or earlier model year, without provision for replacement.

**Support for EMA comments**

The Volvo Group supports the comments of the Truck and Engine Manufacturers’ Association (EMA) except where they expressly conflict with this document.

**About the Volvo Group**

The Volvo Group drives prosperity through transport and infrastructure solutions, offering trucks, buses, construction equipment, power solutions for marine and industrial applications, financing and services that increase our customers’ uptime and productivity. Founded in 1927, the Volvo Group is committed to shaping the future landscape of sustainable transport and infrastructure solutions. The Volvo Group is headquartered in Gothenburg, Sweden, employs nearly 100,000 people and serves customers in more than 190 markets. Volvo Group North America, with headquarters in Greeensboro, NC, employs around 13,150 people in the United States and operates 11 manufacturing and remanufacturing facilities in seven states.  In California, the Volvo Group and its dealers employ over 1,000 people with locations in Mountain View, Costa Mesa, Corona, Haywood, Fontana, Stockton, Fresno and La Mirada.  The Volvo Group is the only major truck manufacturer that produces all its vehicles for the North American market in the U.S.  In 2020, the Volvo Group’s global net sales amounted to about $36.8 billion. Volvo shares are listed on Nasdaq Stockholm. For more information, please visit [www.volvogroup.com](http://www.volvogroup.com)

**Conclusion**

The Volvo Group thanks you for your consideration of our comments. We are willing to discuss further these and any others issues associated with these two rulemakings.

Sincerely,

Marc Miller

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