The California Caterpillar Dealers

December 18, 2023

Clerk of the Board
California Air Resources Board
1001 I Street
Sacramento, California 95814

Subject: **Proposed Zero-Emission Forklift (ZEF) Regulation – Many Unresolved Issues**

Dear Chair Randolph, and CARB Board Members,

Since 2020 the California Caterpillar dealers have worked with staff to help educate them on the feasibility of replacing spark-ignited forklifts with electric. While some concerns we raised were addressed in this proposed regulation, a majority of the concerns/issues remain unresolved.

In September staff informally presented us with a draft of the proposed regulation they intended to bring to the Governing Board. We were shocked at how many significant changes were made in comparison to what was proposed at the final public workshop in 2023. We find it very disconcerting the proposal before you, containing so many major changes, is being considered for 45-day comments without having had a formal public workshop. We also have concern that the 45-day comment period is released 7 months in advance of the Governing Board hearing in June 2024.

Listed below are the significant changes of major concern that were added at the last minute since March 2023 without a public workshop. Detail is provided on each item in the body of this letter:

1. Diesel forklift restrictions were added that *clearly* violate the nonroad engine and vehicle preemption in the Clean Air Act (CAA), and which also conflict with the provisions of the Off-Road Mobile Diesel Regulation. These sections must be removed.
2. A ban on possession and sales of any 2025 and older "new" Class IV and Class V forklifts was added with no sell-through provision that would allow dealers to sell off remaining "new" inventory purchased prior to 1/1/2026. A one (1) year sell-through and possession provision must be added.
3. Many stakeholders explained the need for extensions where physical infrastructure (e.g. roofed areas for forklift charging and battery storage) is necessary but where any number of delays (explained in detail following) are unavoidable. The only infrastructure extension included in the proposed regulation pertains solely to ZEF-related charging and fueling infrastructure. Though other physical infrastructure requirements are real, staff still refused to add such an extension. For the many reasons explained in detail following, a physical infrastructure delay extension is necessary and must be added.
4. A technical infeasibility extension section was added; however, again, at the last minute staff added a sunset date of 12/31/2037 whereby the extension would be denied irrespective of whether or not the technical infeasibility remains for a company's operations. This sunset date must be removed. An extension must be allowed beyond 12/31/2027 until a feasible solution is available to a company to use a ZEF to continue their operations. In addition, if an LSI forklift is granted an extension due to infeasibility and that forklift must be replaced for any reason (damage, theft, fire, worn out) there must be an exception that allows for a new LSI forklift replacement that would be a 2026 or later model year.

In addition to the above issues, several other concerns we, and others, raised multiple times with staff remain unresolved. These issues are explained in our letter following the discussion on the items above.

Diesel Forklift Restrictions Violates CAA and Conflicts With Off-Road Regulation

Section 3007(j) and Section 3011(a) must be removed because these sections not only violate the Clean Air Act (CAA) Section 209(e) (42 U.S.C. Section 7543), but these sections also conflict with the off-road diesel mobile regulation.

The CAA prohibition (preemption) of nonroad engines and vehicles states …"No State or any political subdivision thereof shall adopt or attempt to enforce any standard or *other requirement relating to the control of emissions* from either of the following new nonroad engines or nonroad vehicles subject to regulation under this chapter—
(A)New engines which are used in construction equipment or vehicles or used in farm equipment or vehicles and which are smaller than 175 horsepower."

There is no allowable waiver process to this preemption.

Because Section 3011(a) relates the addition of a diesel forklift to a replacement of either an LSI or diesel forklift, this is controlling the emissions from nonroad diesel equipment under 175 HP that are presumed to be construction or agriculture and preempted from regulation by California.

Each of the following examples of adding new diesel forklifts that this section attempts to prevent in violation of the CAA clearly relates to the control of emissions from this equipment. 1) a rental company will be prevented from adding additional diesel forklifts in its fleet to meet demand. A rental company has no way to demonstrate if the use by its renter could also be served by the use of an LSI forklift; 2) a company with no LSI or no diesel forklifts would not be able to add a diesel forklift because they could not relate it to the removal of an existing diesel forklift; 3) a company with only diesel fuel available for use on site (e.g. a construction site) could not add a diesel forklift; 4) a new company could not purchase any diesel forklifts for their new operations; 5) a company expanding its operations would not be able to add a diesel forklift.

As for the conflict with the off-road diesel mobile regulation, by preventing a fleet from purchasing diesel nonroad forklifts it creates a potential impediment to a fleet's ability to achieve a final NOx fleet average in accordance with that regulation's performance requirements. Further, the Initial Statement of Reasons (ISOR) clearly states in at least 13 paragraphs that "The Proposed Regulation is focused on the replacement of large spark-ignition (LSI) forklifts with zero-emission forklifts and *does not cover diesel-fueled (compression-ignited) forklifts. Diesel-fueled forklifts are currently subject to CARB's current In-Use Off-Road Diesel Fueled Fleets Regulation (Off-road Diesel Regulation)*…".

For these reasons, these sections must be removed from the regulation due to their relation to the control of emissions from this preempted equipment under the CAA, the conflict it creates with a fleet's compliance with the off-road diesel mobile regulation, and the multiple discrepancies with the ISOR with respect to stated exclusion of off-road diesel mobile equipment.

<u>Banning Possession and Sales of *Any* Prior Model Year New Class IV LSI Forklifts After 1/1/26, and Class V LSI Forklifts after 1/1/2029; Sell Through Provision Required</u>

This last-minute added restriction on fleet operators and dealers must be removed from Sections 3002(a), 3003(a)(1)(B), 3003(a)(2), 3003(b)(1)(A), 3003(b)(2)(A)(1) and 3003(b)(2)(B)(1). Dealers will acquire Class IV and Class V forklifts from the manufacture in 2024 and 2025 (or even prior) that could easily remain in inventory due to reasons beyond the dealer's control. There must be at least 1 year beyond 1/1/2026 in which this "new" Class IV and Class V inventory may be held in possession and sold, including sales both externally and internally to rental agencies, sales to fleet operators, as well as sales internally to a company's operations fleet.

Further, there needs to be some provision to allow the sale of a forklift ordered in 2024 or 2025 specifically for an end user that ends up being delayed by the manufacture until after 1/1/2026. That forklift should still be allowed to be sold and purchased by the end user after 1/1/2026 even though the forklift and/or engine could be model 2026. In this case, a 2026 model year forklift sold under this provision would be required to be phased out in the same year as the 2025 model year forklifts.

<u>Physical Infrastructure Extension Requirement</u>

As stated on Page 1, many stakeholders explained to staff that there is a need for a delay extension where physical infrastructures are necessary to accommodate ZEFs. The construction of such physical infrastructures can encounter many possible delays. In a recent discussion with staff, they indicated all ZEFs can be stored and charged outside so there is no need for roofed areas. <u>This is an extremely erroneous assumption</u>. While some ZEF forklifts are made to withstand weather, the useful life of an electric forklift is diminished and damage can occur when stored outside. As stated by a major forklift manufacturer: "Always store electric trucks inside in dry conditions and around 20°C to ensure a long lifetime for your trucks and their battery components. The battery and electrical components can be damaged by certain weather conditions like rain and snow, particularly if the truck is not in use."

Section 3007(b)(3) for Infrastructure Delay Extensions only pertains to charging and fueling infrastructure. This section must also include provisions for any delays with physical infrastructure such as a roofed area that must be constructed to protect the charging systems and electrical from environmental elements. If ample existing locations under roof are not available at a site, a separate roof-covered space would be required. The charging systems, stored lithium or lead-acid batteries, and electric forklifts themselves cannot just be placed outside. Delays with physical infrastructures can include, but are not limited to, material shortages, inspections, contractor and subcontractor issues, plan and permit approvals, <u>fire marshal restrictions or plan/permit denials (e.g. circumstances that would prohibit the use of lithium battery powered forklifts or storage at a facility)</u>, and rain delays; all of which are out of the control of the owner. This process may take a couple years <u>or more</u> from design to installation.

There are a couple other items in this section that must be amended. The Extension Term must not be capped at 2 years. From design, to plans, to building department plan check, to contractor selection and actual construction, this can easily be more than 2 years, especially with building new structures or bringing in additional power lines. There must be a provision for continuing one (1) year extensions with supporting documentation. The requirement to relocate forklifts per Section 3007(b)(3)(A)1.c. and d. make no sense given a fleet must comply universally across all facilities, and the number of forklifts located at a facility are dictated by the company's operations at a site, and not by the electrical capacity at a site.

Class IV/V Forklift Extension For Technical Infeasibility

The 12/31/2037 sunset date in Section 3007(4) must be removed. If a company has been trying diligently to find a solution with a ZEF for their operations but no such ZEF exists by 12/31/2037, the company cannot just be told they must cease operations. An extension must be allowed beyond 12/31/2037 until a feasible solution is available to a company to use a ZEF to continue their operations.

In addition, if an LSI forklift is granted an extension due to infeasibility and that forklift must be replaced for any reason (damage, theft, fire, worn out) there must be an exception that allows for a new 2026 or later model year LSI forklift replacement. CARB cannot just tell an end user that they must cease their operations if there is no technologically feasible electric replacement for the LSI forklift needing to be replaced at the time the replacement is necessary.

In addition to the above, we have asked for the following issues to be feasibly resolved; however, they remain unchanged:

Phase Out Cap

Staff had promised stakeholders they would include a phase-out cap to reduce the financial burden on companies that have hundreds of forklifts affected by the phase out. Although staff had included a phase-out cap in a previous draft, a cap is not included in this proposal. A phase-out cap must be reinstated for this regulation to be feasible for large fleets, especially for rental fleets.

Staff's reasoning is a phase-out cap was removed when they restructured the phase out schedule. However, when a company has hundreds of forklifts affected by the phase out, many of which will fall in the same phase out year, it becomes an economic infeasibility issue with forklift purchases and infrastructure. Therefore, a phase out cap must again be reinstated as we previously presented and discussed with staff that would require no more than 25% per year of the applicable model year forklifts to be phased out, and the remainder of the fleet not turned over by the phase out model year would be carried into the next year. In the following years, the oldest forklifts already meeting the phase out would be subject to retirement first under that cap. Any cap less than this would still create an economic infeasibility for very large fleets. Also, without a cap, large companies will require mass replacements, thus creating potential electric forklift availability issues and possibilities of leaving companies with the inability to properly operate their business.

Site Electrification Delay and Forklift Delivery Delay Extensions

Forklift Delivery Delay Extension. Requiring a purchase order to be drawn at least 2 years in advance is unreasonable. The purchase order must be limited to no more than 1 year from a compliance date. Additionally, why would the purchase order need to specify the delivery to be made at least 45 days prior to a compliance date? This too is unreasonable given no vendor can actually commit to that a specific time period for delivery given long lead times and manufacturer delays. This requirement must be removed. Finally, the requirement to submit a delay request between 45 to 90 days could be infeasible. A notice of equipment being delayed could occur from the manufacturer all the way up to the end of the year due to material shortages. As dealers, we have seen this as the result of supply chain issues. This requirement must also be removed. A request should be allowed to be submitted up to and including 12/31 prior to the compliance date.

Also Section 3007(b)(2)(B)2.a. must not provide for *preferential treatment to government* for securing an alternate purchase or lease agreement if a manufacturer cancels an agreement. Either the 180 days or 1 year must apply to *all* fleets.

Site Electrification Delay Extensions. 3007(b)(3)(B)1.c and 1.d. regarding forklift relocations again do not make any sense. The number of lifts at a facility is determined by the needs of the operations or a rental company's inventory deployment, and definitely not on the what ZEFs can be supported by the electric utility provider. Likewise, even if a site had multiple locations, again, relocation of forklifts makes no sense. Forklifts needed at a site are dictated by the operations, or in the case of a rental company, the rental demand, and not by what facility provides more power than another.

Useful Life

As stated in our letters and conversations with staff, we asked that the forklift Model Year relate to the calendar year in which the forklift was manufactured, and not on the engine model year. Given the way the phase out schedule is set up, using the engine model year will prematurely shave off more years from the useful life for those forklifts with the engine model year being a year or more earlier than the year the forklift was manufactured. Though a forklift model year may not be posted on the equipment label, it is easily obtained from the manufacturer.

Section 3006(c) Is Unreasonable and Too Complicated and Must Be Simplified

Section 3006(c) requires fleet operators and rental agencies to know exactly what they will need in electrical capacity at each facility by 3/31/2026 to tell the electrical provider of the company's needs. The requirements of this section are quite unreasonable and overly burdensome and complicated. There would be no way to make such an accurate assessment for a fleet that phases out over a 10 to 12 year time period. This restriction is even more infeasible to pinpoint by the specified dates for rental companies that move equipment around their many locations based upon demand and not based upon a facility's electrical capabilities. This section must simply state that if and when an issue may arise that relates to electrical capacity the Executive Officer must be notified and the electrical utility provider must be engaged by the fleet operator to provide solutions.

3007(a)(4) Must Be Revised With Respect to the 10 Hour Limit on Dealer Transfers

As forklifts dealers we know there are cases where a manufacturer delivers a new forklift to a dealer that may already have more than 10 hours on the hour meter. Additionally, transfers between dealers nationwide happen all the time and it is possible a forklift may have accumulated hours during the time with the out of state dealer for demonstration that might push the hour meter past 10 hours. In either case, the forklift remains new because it has yet to be sold into commerce.

This section should state nothing more than the forklift being transported for delivery out of state shall *not be operated while in California* for more than 10 hours. To prove this, should an CARB inspection occur, the dealer could produce a bill of lading (BOL) that would indicate the hours when shipped to the dealer that could be compared to the hour meter at the time of an inspection.

Section 3007(a)(3)(B) Temporary Storage of Non-Compliant LSI Forklifts Is Unreasonable

Section 3007(a)(3)(B) is unreasonable and should be removed. First, in 3007(a)(3)(A) once the battery is disconnected or removed, there is no "Energy Isolation Device" other than the battery cables; there is no circuit breaker. So whether you put a lock on the battery cables or you put a red tag on the cables the method of isolation is one and the same and both are acceptable lockout/blockout means according to the OSHA regulation. Thus, this section should either just require the battery to be disconnected or removed and the cables locked *or tagged*, or the propane tank should be removed and the gas regulator locked *or tagged*. No other equipment like the attachments (e.g. forks or mast) should ever need to be removed. Again, removing items requires more labor costs to remove and reinstall for sale, and it presents more ways something can go wrong in either disassembly or reassembly prior to sale.

In summary, we ask the Governing Board to request staff to do the following:

1. Remove Section 3007(j) and Section 3011(a) that violate the CAA preemption and conflict with the off-road mobile diesel regulation.
2. Provide a sell-through provision for one year following 1/1/2026 within which a dealer is allowed the possession and sale of a 2025 or older new LSI forklift that remains in the dealer inventory.
3. Provide a physical infrastructure delay extension that accommodates any delays related to construction and permitting of any necessary structures needed for storage and charging of electric forklifts and battery systems.
4. Remove the 12/31/2037 sunset date in Section 3007(4) where no technologically feasible solution is yet available to a company to use a ZEF to continue their operations. An exception to the ban on a 2026+ LSI replacement forklift using such an extension must also be allowed.
5. Reinstate a phase-out cap to reduce economic infeasibility issues with forklift purchases and infrastructure.
6. Amend the Site Electrification Delay and Forklift Delivery Delay Extensions as requested.
7. Correct the useful life to pertain to the calendar year in which the forklift was manufactured, and not based upon the engine model year to allow a consistent useful life to all LSI forklifts.
8. Simplify Section 3006(c) to only require fleet operators and rental companies to communicate with CARB and the electrical providers if there is an issue with electrical capacity at a facility.
9. Revise Section 3007(a)(4) as requested to clarify the 10 hour limit on possession of out-of-state transfers.
10. Revise Section 3007(a)(3)(B) to remove any requirement to remove forklift attachments if a phased-out forklift is only “tagged” out instead of “locked” out when awaiting sale. Both are approved OSHA methods for de-energizing.

If you have any questions or you require additional information, you may contact Bob Shepherd at 562-463-6013.

Sincerely,

The California Caterpillar Dealers

Bob Shepherd
Quinn Group, Inc.
Manager – Sustainability & Compliance

John Braden
Hawthorne CAT
Fleet Management Specialist

Grant Stickney
Peterson CAT
Product Support and Emissions Solutions

Cary Roulet
Holt of California
Vice President Material Handling Division

Mike Mason
Fleet Manager
Holt of California