

Air Quality Update

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CARB ZERO-EMISSION FORKLIFT REGULATION

On June 27, 2024, the California Air Resources Board (CARB) approved the Zero-Emission Forklift (ZEF) Regulation. The ZEF Regulation will reduce criteria pollutants, such as oxides of nitrogen (NO_x), fine particulate matter (PM_{2.5}), and greenhouse gas (GHG) emissions, from in-use large spark-ignited (LSI) forklifts. The regulation restricts the sale of most LSI forklifts starting in 2026 and establishes phase-out requirements between the years 2028 and 2038.

This regulation applies to forklifts and engine manufacturers, as well as any person, public utility, special district, or government agency that operates, permits the operation of, owns, leases, rents, sells, or offers forklifts or engines for lease or rent within California. Forklifts not subject to the ZEF Regulation include rough terrain forklifts, vehicle-mounted forklifts, combat and tactical support equipment, pallet jacks, forklifts equipped with a telescoping boom, forklifts subject to the Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards Regulation, and forklifts owned and operated by an individual for personal, non-commercial, and non-governmental purposes.

The phase-out schedule, outlined in Table 1 in the next column, is dependent on model year and forklift classification and is designed so that no forklift is required to be phased out before it is 10 years old. Small fleets may follow an alternative phase-out schedule that allows for Class IV forklifts to be held onto for longer.

Table 1: Phase-Out Schedule

Forklift Class	Rated Capacity	Phase-Out ¹
Class IV	≤ 12,000 lbs	1/1/2028
Class IV	> 12,000 lbs	1/1/2035
Class V	≤ 12,000 lbs	1/1/2030
Class V	> 12,000 lbs	No Phase-Out Req.

1. Identifies the first phase-out deadlines.

Fleets can utilize a phase-out percentage cap to their first compliance deadline. Forklifts shall be phased out in the order of oldest to newest. All applicable LSI forklifts not phased out due to utilization of a phase-out percentage cap shall be phased out by the next applicable compliance date.

Similar to the LSI Engine Fleet Requirements Regulation, forklifts that operate less than 200 hours per year can be designated as low-use forklifts and are exempt from the ZEF phase-out requirements. However, the regulation will prohibit the operation of low-use LSI forklifts after December 31, 2030. Government agencies operating forklifts that support emergency operations can utilize the Dedicated Emergency Forklift Exemption, which exempts these forklifts from the ZEF phase-out requirements. Fleet operators can also apply for a number of available extensions to the compliance deadlines.

Fleet operators of large fleets must submit an initial report to CARB by April 30, 2026, and then submit an annual report documenting any changes to their fleet by April 30th each year thereafter. Small fleets must submit their report by September 30, 2026, and then submit an annual report by September 30th each year thereafter.

For more information, visit: <https://ww2.arb.ca.gov/our-work/programs/zero-emission-forklifts>

Air Quality Tip

The San Joaquin Valley Air Pollution Control District (SJVAPCD) recently updated California Environmental Quality Act (CEQA) Implementation Policy APR 2010, which now requires CEQA requirements to be completed during the initial application review. Authority to Construct (ATC) applications where CEQA is not finalized may experience delays in application processing and ATC issuance.

Upcoming Online EH&S Training Offered by Yorke Engineering

- Northern California Air Quality Regulations, Permitting, and Compliance Seminar (3-Hour Sessions): November 12, 13, 19, 20, and 21, 2024
- California Multi-Media Environmental Regulations: Permitting, Compliance, and Reporting Seminar (4-Hour Sessions): October 15, 17, 22, and 24, 2024
Class Info at: <http://yorkeengr.com/classes>

Upcoming Due Dates for 2024/2025*

- CARB LCFS Verification Statement.. 8/31/24
- CARB LCFS Q2 Fuel Report..... 9/30/24
- CARB GHG Cap-and-Trade Annual Compliance Surrender 11/1/24
- SJVAPCD Rule 4694 3-Year Plan... 12/1/24 (Every 3 Years)
- CARB LCFS Q3 Fuel Report..... 12/31/24
- CARB Off-Road Diesel Compliance by Fleet Average or BACT (All Fleets) .. 1/1/25
- CARB ACF Compliance by Fleet Milestone or MUL Pathway 1/1/25
- SJVAPCD Rule 4311 Flare Event Report 1/30/25
- CARB On-Road TRUCRS Reporting for Flexibility Options ... 1/31/25
- CARB ACF Report for HPF Fleets .. 2/1/25
- SJVAPCD Rule 2280 Portable Equipment Report..... ≤30 Days from End of Quarter
- Semi-Annual Title V Report .. Semi-Annually
- Annual Title V Compliance Certification Annually
- Title V – Application for Permit Renewal – Due 180 Days Prior to Permit Expiration

*Due dates listed are statutory dates; sometimes dates are extended when on a weekend/holiday.

CTR REGULATION REMINDER – ADDITIONAL FACILITIES REQUIRED TO REPORT

CARB’s Criteria and Toxics Reporting (CTR) Regulation will begin to be implemented at additional facilities in 2025 depending upon Permitted Process types and Activity Levels. These additional applicable facilities will be required to report annual emissions data for 2024 emissions. Specifically, facilities will provide emissions data for the first time if certain Activity Levels are exceeded for the specified Permitted Processes at a facility.

This initial round of reporting will be required in 2025 for data year 2024 (DY2024), for all applicable facility emissions. Facilities in Sector Phase 2 that are located in District Group A¹ will be affected. Similarly, facilities classified under Sector Phase 1 located in District Group B² will also be required to comply.

Table 2 to the right contains a summary of the District Group A, Sector Phase 2 facility categories required to report DY2024 emissions data for the first time in 2025. Table 3 to the right contains a summary of the District Group B, Sector Phase 1 facility categories required to report DY2024 emissions data for the first time in 2025.

Each local air district will implement these CTR requirements through their annual emissions reporting or emissions inventory program, such as the South Coast Air Quality Management District’s (SCAQMD’s) Annual Emissions Report (AER) that is due May 1, 2025, for DY2024.

¹ Includes major air quality management/air pollution control districts (AQMDs/APCDs): SCAQMD, Bay Area AQMD, Sacramento Metropolitan AQMD, San Diego County APCD, Imperial County APCD, and SJVAPCD.

² Encompasses all other California air districts: Mojave Desert AQMD, Ventura County APCD, and Santa Barbara County APCD.

Table 2: District Group A, Sector Phase 2 Facilities with First-Time Reporting for DY2024

Permitted Process	Activity Level Reporting Threshold for Permitted Process
Isocyanate compound use	Use of materials containing 3 lbs of isocyanates per year
Printing and publishing, including print shops and miscellaneous commercial printing	Use of materials with no isocyanates: average of 2 gal/day; use of materials with isocyanates: average of 0.5 gal/day
Hazardous waste treatment, storage, disposal, and recycling at a hazardous waste treatment, storage, disposal, and recycling facility	Any activity level
Welding, laser cutting, and plasma cutting of metal materials	Any activity level
Construction aggregate processing, if asphalt products are also used or produced	Any activity level
Chemicals and allied products manufacturing	Any activity level
Bulk petroleum storage and loading, bulk benzene storage and loading, and wholesalers	Any activity level
Polybrominated biphenyl compounds and any brominated diphenyl ethers use	Any activity level
Use of ethylene oxide for sterilization	Any activity level
Leather and hide tanning and finishing	Any activity level
Retail sale of gasoline	25,000 gal/yr of gasoline sold
Auto body repair and coating operations	50 gal/yr of paint used
Medical services, hospitals, and related facilities	110 lbs/yr of formaldehyde or glutaraldehyde emitted, or any ethylene oxide, or 30 gal/yr of diesel use or 5 hrs/yr of non-emergency operation
Flat glass manufacturing	100 lbs of glass production
Pressed and blown glassware manufacturing	100 lbs of glass production
Clay ceramics manufacturing	1 ton of product manufactured

Table 3: District Group B, Sector Phase 1 Facilities with First-Time Reporting for DY2024

Permitted Process	Activity Level Reporting Threshold for Permitted Process
Metal plating, anodizing, or grinding using cadmium or chromium	Any activity level
Plating, polishing, coating, engraving, using chromium, cadmium, or nickel	Any activity level
Petroleum refining and industries related to refining	Any activity level
Industrial machinery manufacturing	Any activity level
Release of fumigant or fumigation of crops	Any activity level
Rubber and misc. plastics products manufacturing if styrene, butadiene, phthalates, carcinogenic solvents, or isocyanates are used	Any activity level
Processes emitting 1,4-dioxane	10 lbs of 1,4-dioxane emitted per year
Combustion of crude, residual, distillate, or diesel oil, except for the agricultural operations and medical-related industry sectors	Tier 4: 100 gal/yr, or 5 hrs/yr non-emergency use; Tier 0-3 diesel engines: 30 gal/yr or 5 hrs/yr of non-emergency use; other combustion devices: 100 gal/yr fuel use
Processes emitting styrene	1 lb of styrene emitted per year
Methylene chloride use	1 gal of methylene chloride used per year
Paint stripping and varnish stripping	Any activity level
Use of N-methyl pyrrolidone	1 gal of N-methyl pyrrolidone per year
Dry cleaning facilities, except facilities that only use water or CO ₂ systems	Any activity level
Tert-butyl acetate use	20 lbs of tert-butyl acetate used per year
Use of parachlorobenzotrifluoride (PCBTF)	5 lbs or 0.5 gal of PCBTF used per year
Solvent cleaning and degreasing	Use of solvents listed as a human carcinogen or potential human carcinogen: any activity level; annual average of 55 gal per month

SJVAPCD GRANTS AND INCENTIVES

The SJVAPCD offers multiple grant opportunities to help businesses reduce emissions throughout the Valley. Some available programs and links to additional information are provided below. In general, applicants should ensure their project meets any applicable eligibility criteria and have a signed contract from the SJVAPCD prior to purchasing new equipment to ensure funding. To learn more, visit:

<https://ww2.valleyair.org/grants>

Zero-Emission Forklift Replacement Program

The Zero-Emission Forklift Replacement Program provides incentive funds for the replacement of in-use LSI forklifts. Funding for this program is available for a maximum of 80% of the eligible cost of a new zero-emission forklift. The new forklift must be operated within the SJVAPCD District boundaries and replace an existing forklift operated in California for the previous 2 years. The existing forklift must be operational and in compliance with the LSI Regulation. To learn more, visit:

<https://ww2.valleyair.org/grants/zero-emission-forklift-program>

Off-Road Mobile Equipment Repowers Program

The Off-Road Mobile Equipment Repowers Program provides incentives for engine replacement (repower) of off-road self-propelled vehicles, such as tractors, backhoes, and excavators. Funding is available to cover up to 85% of the eligible costs for Tier 3 or higher repowers. In general, new engines must meet the current applicable engine standard and reduce emissions of NO_x by at least 15%. Existing diesel engines must be greater than 25 horsepower, provide motive power for a self-propelled off-road vehicle, and in compliance with the In-Use Off-Road Diesel Vehicle Regulation, if applicable. To

learn more, visit:

<https://ww2.valleyair.org/grants/off-road-mobile-equipment-repower>

Truck Replacement Program

The Truck Replacement Program provides incentives to truck owners for truck replacement for heavy-duty on-road trucks. New zero-emission or low-NO_x trucks replacing existing heavy-duty diesel trucks are eligible for funding up to 80% of the replacement vehicle costs for small fleets (1-10 trucks) and 50% of the vehicle cost for large fleets (11 or more trucks). Zero-emission yard trucks replacing existing yard trucks are eligible for funding up to 45% of the total eligible cost of the replacement trucks. To learn more, visit:

<https://ww2.valleyair.org/grants/truck-replacement-program>



Charge Up! Program

The Charge Up! Program provides

funds for businesses, public agencies, and owners of multi-unit residential properties to purchase and install electric vehicle chargers for public use. Grants are available for up to \$6,000 for a Level 2 charger and up to \$25,000 for a direct current (DC) fast charger. Applicants may be able to access additional funds through State or utility programs. To learn more, visit:

<https://ww2.valleyair.org/grants/charge-up>

Clean Vehicle Fueling Infrastructure Program

The Clean Vehicle Fueling Infrastructure Program provides funding for the installation of new stations, conversion of existing stations, and expansion of existing stations for hydrogen fueling and electric battery charging of heavy-duty vehicles. Funding is available up to a maximum of 50% of eligible costs for all projects. Projects that are publicly accessible or incorporate renewable energy sources are eligible for greater funding levels. To learn more, visit:

<https://ww2.valleyair.org/grants/clean-vehicle-fueling-infrastructure-program>

Additional Programs

Public utilities may be eligible for funding to provide training related to alternative fuel vehicles and infrastructure, replacement of diesel-powered emergency vehicles, and zero-emission school bus replacement.

Agricultural operations may be eligible for grant funding for irrigation pump replacement, in-use off-road tractors or mobile equipment, heavy-duty diesel trucks, and zero-emission utility terrain vehicles. Grant programs to reduce agricultural burning and dust from nut harvesting are also available.

Yorke Engineering, LLC specializes in air quality and environmental consulting for stationary and mobile sources, including dispersion modeling, health risk assessments, permitting, emission inventories, air quality compliance systems, etc. Yorke Engineering has assisted over 1,950 customers, including a wide variety of industrial facilities and government organizations throughout California.