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 South Coast Air Quality Management District (SCAQMD) continues to enforce compliance with the Rule 2305 Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and has issued over 200 Notices of Violation. The next Rule 2305 Annual WAIRE Report (AWR) will be due by January 31, 2025, for all three warehouse phase categories subject to the rule: Phase 1 (250,000 ft² or more), Phase 2 (150,000-249,999 ft²), and Phase 3 (100,000-149,999 ft²).

Upcoming Online EH&S Training Offered by Yorke Engineering (3-Hour Sessions)

- Southern California Air Quality Regulations, Permitting, and Compliance Seminar: November 12, 14, 19, 20, and 21, 2024
  Class Info at: http://yorkeengr.com/classes

Upcoming Due Dates for 2024/2025*

- RECLAIM APEP (Cycle 2) 8/29/24
- CARB LCFS Verification Statement.. 8/31/24
- Title V – 500-SAM 8/31/24
- CARB LCFS Q2 Fuel Report..... 9/30/24
- SCAQMD 1110.2 Quarterly..... 10/15/24
- RECLAIM Quarterly (Cyc. 1 & 2).. 10/30/24
- CARB GHG Cap-and-Trade Annual Compliance Surrender 11/1/24
- 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
- SCAQMD 1110.2 Quarterly..... 1/15/25
- RECLAIM Quarterly (Cycle 2)..... 1/30/25
- CARB On-Road TRUCRS Reporting for Flexibility Options ... 1/31/25
- SCAQMD Annual WAIRE Report .. 1/31/25
- CARB ACF Report for HPF Fleets .. 2/1/25
- Title V – 500-SAM 2/28/25
- RECLAIM APEP (Cycle 1) 3/1/25
- Title V – 500-ACC..... 3/1/25 (Except RECLAIM Cycle 2 .....8/29/25)
- 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 A[1] will be affected. Similarly, facilities classified under Sector Phase 1 located in District Group B[2] 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 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 San Joaquin Valley APCD.

[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

SCAQMD RULE 317.1 CLEAN AIR ACT NONATTAINMENT FEES FOR 8-HOUR OZONE STANDARDS

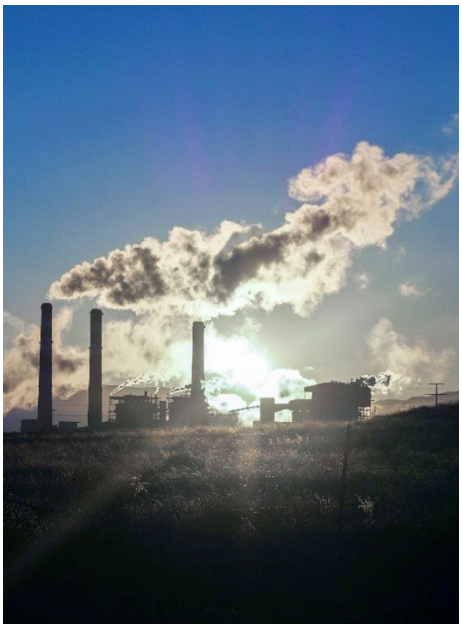
The SCAQMD recently adopted Rule 317.1, which imposes new fees on major stationary sources of air emissions (i.e., Title V permit holders) in the South Coast Air Basin. The air quality in Southern California is not currently in attainment with the clean air standards for ozone, per the regulations established under the federal Clean Air Act (CAA). CAA Section 185 requires that major stationary sources of NO_x and/or volatile organic compounds (VOCs) either reduce their emissions by 20% from their baseline or pay an annual nonattainment fee. The first fee assessment is expected to begin in 2026, using 2024 as the baseline year for fee calculations.

Rule 317.1 Summary

CAA Section 185 requires areas designated as "severe" or "extreme" nonattainment to implement measures to reduce emissions or, alternatively, pay fees based on their pollution levels. The rule applies as the United States Environmental Protection Agency (U.S. EPA) has determined that the South Coast Air Basin failed to meet the National Ambient Air Quality Standard (NAAQS) for ozone. Ozone is formed from the reaction of NO_x and VOCs in the atmosphere. Rule 317.1 standardizes the process for determining the fees to be imposed on major sources of VOCs and NO_x.

Rule 317.1 was adopted June 7, 2024. Facilities subject to this rule will begin paying fees starting in 2026. The fees are calculated based on the quantity of VOCs and NO_x emitted above 80% of their 2024 emission levels. This baseline year is crucial for determining the initial fee assessments. Fees will be due annually, and they will be adjusted to account for changes in emission levels, as well as indexed for inflation.

Rule 317.1 includes a provision for facilities to take an enforceable permit limit and agree that actual NO_x and VOC emissions, as reported to the SCAQMD, are less than major source thresholds. Facilities that qualify for an Exclusion Plan will not pay nonattainment fees, so long their emissions are below their permit limit.



Key Considerations for Facilities

- ***Financial Impact:*** Rule 317.1 fees will be calculated starting at approximately $11,922 per ton of emissions for both VOCs and NO_x exceeding 80% of the facility's 2024 baseline.
- ***First Payment Due Date:*** Rule 317.1 CAA nonattainment fees are due no later than 365 days after an invoice is issued by the SCAQMD Executive Officer. The invoices are expected in 2026 for 2025 NO_x and VOC nonattainment fees.
- ***Annual Payment:*** Following the initial payment, major stationary sources must continue to pay the CAA nonattainment fee for each subsequent year that the U.S. EPA determines the basin fails to meet the ozone NAAQS.

Planning and Preparation

To prepare for the upcoming fee assessments based on the 2024 baseline year, ensure that your SCAQMD AER emissions are reported accurately and include all NO_x and VOC emissions.

You can run a quick calculation of the expected fees, based on 2024 NO_x and VOC emissions, to estimate what the fees might be starting in 2026. If you assume your 2025 emissions are the same as 2024, calculate 20% of the baseline 2024 emissions of NO_x and VOCs, then multiply by $11,922 per ton.

However, if you can reduce NO_x and VOC emissions to less than 80% of the 2024 baseline from operational changes or additional emission controls, your nonattainment fees may be zero.

You can explore whether a Rule 317.1 Exclusion Plan is an option for your facility to avoid nonattainment fees. The Rule 317.1 Exclusion Plan establishes an alternate pathway to Title V exclusion for facilities with actual VOC and/or NO_x emissions of less than 10 tons per year.

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.