Air Quality Update

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August 22, 2025 – Bay Area Air District

NEW EPA REFRIGERANT REGULATIONS UNDER 40 CFR PART 84, SUBPART C

On December 10, 2024, the U.S. Environmental Protection Agency (EPA) updated its refrigerant management rules under Code of Federal Regulations (CFR) Title 40 Part 84, Subpart C. These rules impose stricter limits on the use of reclaimed refrigerants and lower compliance thresholds. The rules become effective January 1, 2026.

Key Updates Under the New EPA Refrigerant Regulations

Effective 2026, units with 15 pounds or more of refrigerants with a Global Warming Potential (GWP) greater than 53 will be subject to the rules. This includes common hydrofluorocarbons (HFCs), such as R-134a, R-404A, and R-410A. The new threshold is more stringent than California's 50-pound limit.

Starting January 1, 2025, high-GWP HFCs will be restricted in new aerosols, foams, and equipment. New fire suppression system requirements, including training and reporting, begin in 2026.

Also beginning in 2026, automatic leak detection (ALD) systems will be required for equipment with more than 1,500 pounds of refrigerant with a GWP greater than 53. This is more stringent than the California Air Resources Board's (CARB's) 2,000-pound threshold for refrigerants with a GWP over 150.

Any time refrigerant is added (except for new installations, retrofits, or seasonal variances), a leak rate check must be performed. If the leak rate exceeds: 1) 20% for commercial refrigeration; 2) 30% for industrial process refrigeration; or 3) 10% for comfort cooling or other systems, then the facility must:

- Repair the leak within 30 days (for most systems) or 120 days (for industrial processes where shutdown is required to make the repair);
- Conduct initial and follow-up verification tests; and
- Perform inspections:
  - Every 3 months for systems with over 500 pounds; and
  - Annually for systems with 15 to 500 pounds.

Systems with leak rates over 125% of their charge must be reported to the EPA by March 1st each year.

Effective January 1, 2026, refrigerant may not be sold, labeled, or reported as reclaimed if it contains more than 15% virgin-regulated substance by weight.

Facilities must maintain appliance records, including charge size, service and repair dates, and verification test results, for 3 years after retirement. Reporting is required for repair extensions, equipment retirements, and exclusions for purged refrigerant.

What These Changes Mean for CARB-Registered Refrigerants

The updated EPA regulations set stricter thresholds than CARB for refrigerant quantities and ALD systems. It also incorporates comfort cooling/heating, ventilation, and air conditioning (HVAC) systems. Units with over 15 pounds of refrigerants or with a high GWP will require tracking and reporting. Reclaimed refrigerants will need to meet new limits on virgin content, and ALD systems will be required for new units installed beginning in 2026 and for existing units by January 1, 2027.

Air Quality Tip

After receipt of an Authority to Construct (ATC), there are three potential actions a facility must take within a 2-year period:

- *Provide notification of startup;*
- *Request a renewal of the ATC; if not requested during the 2-year period, the facility must reapply and submit a new permit application (including fees); or*
- *Surrender or expire the ATC.*

Upcoming Online EH&S Training Offered by Yorke Engineering

- Northern California Air Quality Regulations, Permitting, and Compliance Seminar (3-Hour Sessions):
  November 4, 5, 11, 12, and 13, 2025
- California Industrial Hygiene and OSHA Safety Regulations Seminar (4-Hour Sessions):
  October 21, 22, 28, and 29, 2025
  Class Info at: https://yorkeengr.com/classes

Upcoming Due Dates for 2025/2026*

- CARB LCFS Verification Statement.. 8/31/25
- Bay Area Reg. 11, Rules 6 & 7 Semiannual Report for Vinyl Chloride & Benzene . 9/15/25
- CARB LCFS Q2 Fuel Report 9/30/25
- CARB GHG Cap-and-Trade Annual Compliance Surrender..... 11/1/25
- CARB LCFS Q3 Fuel Report 12/31/25
- CARB Off-Road Diesel Compliance by Fleet Average or BACT (All Fleets).. 1/1/26
- CARB Off-Road Diesel Fleet Phase-Outs: Tier 0 (Medium)/Tier 1 (Large)..... 1/1/26
- SB 261 Climate-Related Financial Risk Disclosure Reporting..... 1/1/26
- CARB On-Road TRUCRS Reporting for Flexibility Options... 1/31/26
- Semi-Annual Title V Report... Semi-Annually
- Annual Title V Compliance Cert. ... 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 REPORTING

Facilities located in California are now subject to expanded annual emissions reporting requirements under CARB's Criteria and Toxics Reporting (CTR) Regulation. The CTR Regulation supports the broader implementation of Assembly Bill (AB) 617, the data publication requirements under AB 197, and the requirements of AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act. Annual criteria pollutant and toxic air contaminant (TAC) emissions data submitted to air districts is now transmitted to CARB and published annually on a statewide, public-facing Pollution Mapping Tool.

CTR reporting obligations are expanding to a broader range of facilities based on emission levels, activity types, and proximity to impacted communities, with many sources facing new reporting requirements for the first time.

AB 617 and AB 197: Transparency, Monitoring, and Reporting

AB 617, signed in 2017, requires air districts to reduce air pollution in heavily burdened communities through emissions reductions, enhanced monitoring, and increased transparency. One key component of AB 617 is the statewide uniform annual reporting of criteria pollutants and TACs from stationary sources, which began phasing in with the 2019 reporting year.

In parallel, AB 197 mandates that CARB must publicly display emissions data down to a local and sub-county level, including greenhouse gases, criteria pollutants, and TACs. These data are available through CARB's Pollution Mapping Tool, which graphically displays annual emissions by facility and location.

Air District Reporting Process

Under the CTR Regulation, local air districts collect facility emissions data and report this data to CARB. Some air districts, for example, the South Coast Air Quality Management District (SCAQMD), require facilities to calculate and report criteria pollutant and TAC emissions. Other air districts, such as the Bay Area Air District and San Joaquin Valley Air Pollution Control District (SJVAPCD), request annual process throughput information and activity data from facilities.

District staff use the reported process throughput information to calculate criteria pollutant and TAC emissions on behalf of each facility. The resulting emissions information is reported to CARB. Though this reporting process is relatively simple, facilities may not be aware of the final calculated emissions prior to the data being submitted to CARB and published online in CARB's Pollution Mapping Tool.

Alternatively, the CTR Regulation allows facilities to request to submit emissions reports directly to CARB. If the request is approved by both CARB and the local air district, emissions reports must be submitted directly to CARB by August 1st of the year following the data year.

Key Dates for CTR Full Reporters

- January 31st: Deadline to request direct reporting to CARB (if applicable);
- May 1st (or sooner, based on air district requirements): Deadline to submit emissions data to the air district; and
- August 1st: Districts submit verified emissions data to CARB for publication.

CARB's Pollution Mapping Tool

CARB's Pollution Mapping Tool is available at: https://ww2.arb.ca.gov/resources/carb-pollution-mapping-tool. Facilities can search by name or location to view emissions data, which includes criteria and toxics pollutants reported under CTR and AB 2588. Publicly available information includes:

- Total reported greenhouse gas and criteria pollutant emissions by pollutant and year;
- TAC emissions and toxic-weighted emissions (TWE), which account for the relative toxicity of individual TACs; and
- Annual trends in emissions.

Action Items for Facilities

Facilities in the Bay Area, San Joaquin Valley, and other air districts that collect throughput data should consider taking the following actions to ensure emissions data integrity:

- Review facility-level data in the CARB Pollution Mapping Tool;
- Confirm CTR applicability and reporting status with the air district;
- Update facility records and process data to meet new toxics and device-level reporting requirements; and
- Verify emission calculations and documentation to ensure the reported emissions are representative of facility operations.

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 2,150 customers, including a wide variety of industrial facilities and government organizations throughout California.