Air Quality Update

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September 1, 2021 – SJVAPCD

CARB PORTABLE ENGINE TIER PHASE-OUT REQUIREMENTS

Phase-Out Schedule

The California Air Resources Board (CARB) Portable Engine Airborne Toxic Control Measure (ATCM) mandates reduction of emissions from diesel portable engines in California, whether permitted with the San Joaquin Valley Air Pollution Control District (SJVAPCD) or registered with the CARB Portable Equipment Registration Program (PERP). Small fleets have up to 750 cumulative horsepower (HP) under common ownership in California and must follow the tier phase-out schedule for small fleets (see Table 1). Large fleets have over 750 cumulative HP and must follow the large fleet tier phase-out schedule (see Table 1) if they did not opt into the fleet average option back in June 2019.

Note that Tier 4 engines (interim or final) do not phase-out, nor do engines with Level 3 Verified Diesel Emission Control Strategy (VDECS) [85% reduction of particulate matter (PM) or to 0.01 gram per brake-horsepower-hour (g/bhp-hr) of PM].

Low-use and emergency-use engines are exempt from the phase-out schedule. The switch to low-use or emergency-use must be made by:

- For Tier 1 and Tier 2, at least 6 months before phase-out dates in Table 1; and
- For Tier 3, in January at least 12 months before phase-out dates in Table 1.

Low-use engines are limited to 200 hours per calendar year, and hour-meter reports are due by March 1st annually.

Engines certified as "flexibility" (flex)[1] will phase-out on December 31st of the year 17 years after the engine build date.

Table 1: January 1st Phase-Out Dates

Tier	Engines 50-750 HP		Engines Over 750 HP
	Large Fleet	Small Fleet	
1	2020	2020	2022
2	2022	2023	2025*
3	2025	2027*	N/A
4	N/A	N/A	N/A

*Engines built on or after 1/1/2009 have an additional 2 years.

Portable Engine Sales

Portable engines cannot be sold in California after the January 1st dates shown in Table 2, corresponding to the tier. Change of ownership applications, however, are due at least 6 months prior to the sale prohibition dates.

Table 2: January 1st Sale Prohibition Dates

Tier	Engines 50-750 HP	Engines Over 750 HP
1	2020	2022
2	2023	2025*
3	2027*	N/A
4	N/A	N/A

*Engines built on or after 1/1/2009 have an additional 2 years.

[1]See Code of Federal Regulations (CFR) Title 40 Part 1039.625: https://www.ecfr.gov/current/title-40/chapter-I/subchapter-U/part-1039/subpart-G/section-1039.625

Air Quality Tip

California is continuing to develop zero-emission vehicle requirements for on-road and off-road vehicles. If you are purchasing diesel, gas, or propane vehicles, you may want to evaluate electric options. In some cases, there may be funding available from CARB or your local air district. Electric fueling stations that qualify can generate Low Carbon Fuel Standard (LCFS) credits, which can fund additional electrification.

Upcoming Online EH&S Training Offered by Yorke Engineering – Each Session Is Presented Over 4 Half-Days

- Northern California Air Quality Regulations, Permitting, and Compliance Seminar: November 2, 3, 9, 11, 2021
- California Industrial Hygiene and OSHA Safety Regulations Seminar: October 12, 13, 19, 20, 2021

Class Info at: http://yorkeengr.com/classes

Upcoming Due Dates for 2021/2022*

- CARB LCFS Q2 Fuel Report..... 9/30/21
- CARB GHG Cap-and-Trade Annual Compliance Surrender..... 11/1/21
- CARB LCFS Q3 Fuel Report..... 12/31/21
- CARB Off-Road Diesel Compliance for All Fleets, by Fleet Average or BACT..... 1/1/22
- CARB On-Road HDDVs That Must Be Repowered, Retired, or Low-Use..... 1/1/22
  - GVWR > 26,000 lbs, EMY 2006 or Older
- CARB On-Road TRUCRS Reporting for Flexibility Options... 1/31/22
- CARB Off-Road DOORS Reporting for All Fleets 3/1/22
- CARB PERP Reporting: Usage Reports for Equipment Units or Low-Use..... 3/1/22
- CARB Refrigerant Reporting for Med./Lrg. Systems (≥ 200 lbs)..... 3/1/22
- CARB GHG Reporting for Semiconductor Operations..... 3/1/22
- 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.*

SJVAPCD ADOPTED RULE CHANGES

For full details on changes below, go to: http://www.valleyair.org/rules/rules_recently_adopted.htm

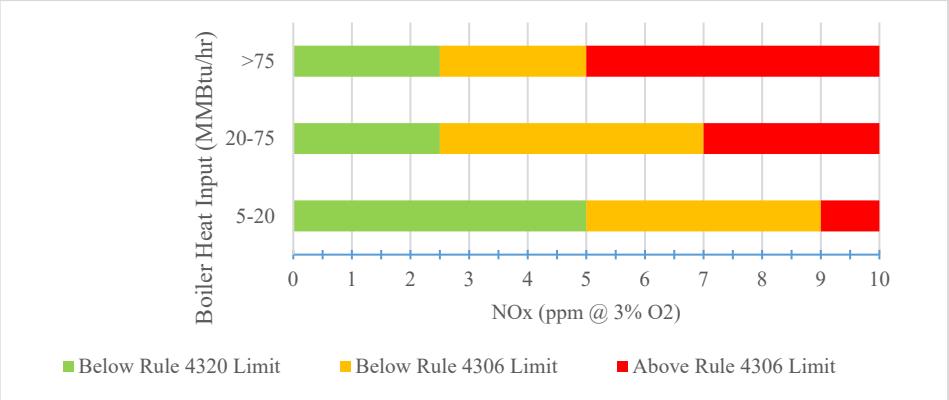
- **Rules 4306 and 4320: *Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr***

The SJVAPCD recently adopted amendments to Rules 4306 and 4320. These rules apply to gaseous and liquid fuel-fired boilers, steam generators, and process heaters with a total rated heat input greater than 5.0 million British thermal units per hour (MMBtu/hr). These equipment units are used at a wide range of facilities in the Central Valley, including oil and gas production facilities, petroleum refineries, food and agricultural processing operations, schools, hospitals, and manufacturing and industrial facilities.

Rule 4306 establishes specific nitrogen oxides (NO_x) emission limits based on the size and category of the unit. Boilers must meet the limits established in Rule 4306 in order to legally operate in the District. Rule 4320 establishes stricter, technology-forcing NO_x limits and facilities must meet the specified emission limits or pay an annual emissions fee to the SJVAPCD.

Emission limits for a typical boiler are presented in Figure 1. Emissions above the Rule 4306 limit (shown in red) would not be allowed after the compliance deadline. Emissions less than the Rule 4306 limit and above the Rule 4320 limit (orange) would be required to pay an annual emissions reduction fee. Units meeting the Rule 4320 emission limit (green) would not be required to pay annual fees. The rule has additional categories for fire tube boilers, units located at schools, units fired on digester gas, oilfield steam generators, and refinery units that have unique requirements.

Figure 1: NO_x Emission Limits for a Typical Boiler



For compliance with Rule 4320, permit applications must be submitted by May 1, 2022, and any modifications or installations must be complete by December 31, 2023. The compliance deadline for Rule 4306 depends on the current permitted NO_x emission limits. For most units, permit applications must be submitted by May 1, 2023, and any modifications or installations must be complete by December 31, 2023. Units with lower NO_x emission limits will have until May 1, 2028, to submit a permit application and until December 31, 2029, to complete any modifications or equipment installation.

- **Rule 4311: *Flares***

In December 2020, the SJVAPCD adopted amendments to Rule 4311: Flares. The rule amendment includes an expansion of rule applicability, establishing emission limits, and additional monitoring requirements for many flares. For existing flares, most units will have the following options:

- Meet the emission limits established by the rule (in most cases, this is equivalent to the installation of an ultra-low-NO_x flare); or
- Limit annual fuel usage to the values provided in Table 3.

Table 3: Flare Annual Throughput Limits

Category	MMBtu/Year
Oil and Gas and Chemical Operations	25,000
Landfill Operations	90,000
Digester Operations	100,000
Organic Liquid Loading Operations	25,000

Flares may be subject to additional reporting and monitoring requirements, including annual reports, annual source testing, and vent gas composition monitoring.

To comply with the new requirements, a permit application must be submitted by July 1, 2022. Compliance with the annual throughput limits must be achieved by January 1, 2024, and modifications to meet the emission limits must be completed by December 31, 2023.

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 1,300 customers, including a wide variety of industrial facilities and government organizations throughout California.