

Air Quality Update

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CTR REGULATION UPDATE

On August 12, 2021, the California Air Resources Board (CARB) adopted additional changes to the “Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants” (“CTR” Regulation), which were approved by the Office of Administrative Law on October 28, 2021, and went into effect on January 1, 2022. These changes modified some of the requirements for additional applicability for facilities that will be required to start reporting as early as 2023 for 2022 emissions. Some of the additional changes include:

- Raising the criteria air pollutant [except carbon monoxide (CO)] threshold for many air districts from 4 to 10 tons per year;
- Providing more time for an extension to submit more information for a non-applicability determination;
- Extending the deadline to start reporting new toxic substances to 2027; and
- Creating a new, later deadline for reporting for wastewater treatment, scrap recycling, composting, and other organic waste handling facilities to occur starting in 2029.

Applicability for new facilities’ initial reporting will begin as early as 2023 for facilities within the six at-risk air districts defined by the regulation and 2025 for other air districts. Annual reporting will be required to begin in either 2027 or 2029 based on the air district location of the facility.

For more information on the changes, visit the CARB website at:

<https://ww2.arb.ca.gov/our-work/programs/criteria-and-toxics-reporting>

GAS-INSULATED SWITCHGEAR REGULATION UPDATE

On August 13, 2021, CARB adopted revisions to the “Regulation for Reducing Greenhouse Gas Emissions from Gas-Insulated Equipment,” which is currently under consideration with the Office of Administrative Law. The first major revision was to incorporate requirements for electrical equipment containing any greenhouse gas (GHG) and any gas-insulated equipment. Major changes include:

- Creating a timeline to phase-out purchase of all insulating equipment containing sulfur hexafluoride (SF₆) by 2033;
- Providing incentives to remove SF₆ equipment before 2025;
- Establishing alternative limits based on total emissions instead of just a percentage leakage rate to improve ability for small capacity owners to meet compliance;
- Revising the calculation methodology based on total GHG emissions instead of just SF₆ emissions and to improve report accuracy;
- Providing a few exemptions to the phase-out deadline;
- Adding a process to correct nameplate capacity of current equipment; and
- Requiring an additional 5% reduction in the annual limit starting in 2035.

Applicability for these changes begins this year for 2021 emissions once the revisions are finalized. Additional information can be found here:

<https://ww2.arb.ca.gov/our-work/programs/elec-tandd>

Air Quality Tip

As the COVID-19 pandemic winds down, be prepared for increased air district inspection activity. Employee absences at work can lead to gaps in recordkeeping, so make sure you have your records up to date in the event of an unannounced inspection.

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: May 3, 5, 10, 12, 2022
 - California Waste and Water Environmental Regulations: Permitting, Compliance, and Reporting Seminar: April 12, 14, 19, 21, 2022
 - California Industrial Hygiene and OSHA Safety Regulations Seminar: March 22, 23, 29, 30, 2022
- Class Info at: <http://yorkeengr.com/classes>

Upcoming Due Dates for 2022*

- CARB Off-Road DOORS Reporting for All Fleets 3/1
- CARB PERP Reporting: Usage for Equipment Units or Hours Low-Use Engines..... 3/1
- CARB Refrigerant Reporting for Medium/Large Systems (≥ 200 lbs) 3/1
- CARB GHG Semiconductor Report 3/1
- U.S. EPA GHG Report 3/31
- CARB LCFS Q4 Fuel Report 3/31
- CARB GHG > 25K Metric Tons 4/10
- CARB LCFS Annual Fuel Report..... 4/30
- CARB GHG 10-25K Metric Tons and All Electric Retailers 6/1
- CARB Gas-Insulated Equipment GHG Report..... 6/1
- CARB LSI DOORS Reporting for Medium and Large Fleets..... 6/30
- CARB LCFS Q1 Fuel Report 6/30
- 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.

SJVAPCD ADOPTED RULE CHANGES

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

▪ Rule 4702: *Internal Combustion Engines*

Amendments to Rule 4702 were adopted on August 19, 2021, to reduce emissions of oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) from various types of engines and to establish particulate matter (PM) control requirements. The amendments are applicable to full-time and limited-use engines at agriculture operations (AOs) and non-agriculture operations (non-AOs). There have been no modifications to the requirements for emergency standby engines and low-use engines (limited to no more than 200 hours of operation per year).

Most categories of spark-ignited internal combustion engines (ICEs) at non-AOs will be required to meet emission limits of 11 parts per million by volume (ppmv) NO_x and 90 ppmv VOCs corrected to 15% oxygen (O₂). Lean-burn engines used for gas compression and waste gas-fueled lean-burn engines will have a NO_x emission limit of 40 ppmv at 15% O₂. The proposed changes affect units with special categories, including limited-use engines and waste gas-fueled engines. An application and Emission Control Plan (ECP) will be due to the San Joaquin Valley Air Pollution Control District (SJVAPCD) by August 1, 2022, and full compliance with the emission limits will be required by December 31, 2023.

All spark-ignited ICEs at AOs will be required to meet a VOC emission limit of 90 ppmv at 15% O₂. Rich-burn engines at AOs will be required to meet a NO_x limit of 11 ppmv at 15% O₂, and lean-burn ICEs will be required to meet a NO_x limit of 43 ppmv at 15% O₂. For

rich-burn ICEs at AOs, an application and ECP will be due to the SJVAPCD by August 1, 2022, and full compliance with the emission limits will be required by December 31, 2023. For lean-burn ICEs, an application and ECP will be due to the SJVAPCD by August 1, 2028, and full compliance with the emission limits will be required by December 31, 2029, or 12 years after engine installation, whichever comes first.

Control requirements for oxides of sulfur (SO_x) were previously only applicable to ICEs at non-AOs, but now apply to all ICEs. ICEs at AOs installed before December 31, 2021, will be required to meet a fuel sulfur content of no more than 250 ppmv. Units installed on or after December 31, 2021, must either limit fuel sulfur content to no more than 5 grains of total sulfur per 100 standard cubic feet (scf) or reduce sulfur dioxide (SO₂) emissions by at least 95%.

Additional rule amendments include:

- The option to pay an annual fee in lieu of complying with the NO_x emission limit will sunset after December 31, 2023;
- The Inspection and Monitoring Plan requirement has been expanded to include all uncertified engines;
- The definition of Waste Gas-Fueled Engines has been updated to include ICEs where $\geq 50\%$ of the total monthly heat input is from waste gas based on Higher Heating Value (HHV); and
- Portable analyzer monitoring requirements have been updated to

include CO and O₂ monitoring, in addition to NO_x.

SJVAPCD PROPOSED RULE CHANGES

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

▪ Rule 4352: *Solid Fuel-Fired Boilers, Steam Generators, and Process Heaters*

The proposed rule is considering lower NO_x, SO_x, and respirable PM (PM₁₀) emission limits for municipal solid waste incinerators. Lower NO_x limits are proposed for biomass plants and new PM₁₀ and SO_x limits are proposed.

▪ Rule 4354: *Glass Melting Furnaces*

The proposed rule is considering lower NO_x, SO_x, and PM₁₀ emission limits for container glass melting furnaces and reducing NO_x and PM₁₀ emission limits for flat glass melting furnaces.

UPCOMING RULE COMPLIANCE DEADLINES

▪ Rules 4306 and 4320: *Boilers, Steam Generators, and Process Heaters*

Many units subject to the lower NO_x limits of amended Rules 4306 and 4320 have applications and ECPs due May 1, 2022, and a full compliance deadline of December 31, 2023.

▪ Rule 4311: *Flares*

Units subject to the amended Rule 4311 annual throughput limits or lower NO_x and VOC limits will be required to submit an application by July 1, 2022, and be in compliance with the rule requirements 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 1,400 customers, including a wide variety of industrial facilities and government organizations throughout California.