



MONTEREY BAY AIR RESOURCES DISTRICT

24580 Silver Cloud Court, Monterey, CA 93940

CLARIFICATION OF PERMIT REQUIREMENTS FOR GASEOUS FIRED BOILERS

Equipment Applicability

This advisory contains clarifications of the permit requirements for gaseous fired boilers to be operated within the Monterey, Santa Cruz and San Benito Counties. The advisory does not apply to boilers with any fuel oil capability.

Permit Requirements

District Rule 201 exempts from permit any natural gas, propane, and/or liquefied petroleum gas fired boiler with an individual or aggregated heat input rate of less than 2 MMBTU/Hr.

Best Available Control Technology (BACT)

The District’s rules require that we calculate emissions in two ways: (1) each piece of equipment subject to permitting and (2) the entire facility, to determine whether Best Available Control Technology (BACT) is required. For example, each boiler with a potential to emit of 25 lbs/day or greater of oxides of nitrogen (NOx), or Volatile Organic Compounds (VOC) is subject to BACT. Also, if the total emissions from all permit units at a stationary source have a potential to emit 150 lbs/day or greater of NOx, or 550 lbs/day or greater of CO, then the source is subject to the BACT requirements. A complete list of stationary source BACT thresholds can be found in Table 4.1.1 of District Rule 207, Review of New or Modified Sources, <https://www.arb.ca.gov/drdb/mbu/curhtml/R207.PDF>.

The District has set NOx and CO BACT requirements based upon a variety of parameters including; fuel type, configuration, and BTU/hr rating. The BACT emission standards for each category are provided in Table 1:

Table 1: BACT GUIDELINES FOR BOILERS

Category/Fuel	Individual Burner Rating (MMBTU/Hr)	NOx (as NO ₂ corrected to 3% O ₂)	CO (corrected to 3% O ₂)
Natural Gas or Propane	≤ 2	≤ 20 ppmvd	400 ppmvd
Natural Gas	> 2 and < 75	≤ 9 ppmvd	≤ 50 ppmvd for firetube type ≤ 100 ppmvd for watertube type
Propane	> 2 and < 20	≤ 12 ppmvd	≤ 50 ppmvd for firetube type ≤ 100 ppmvd for watertube type
Propane	≥ 20 and < 75	≤ 9 ppmvd	≤ 50 ppmvd for firetube type ≤ 100 ppmvd for watertube type
Natural Gas or Propane	≥ 75	≤ 5 ppmvd	≤ 50 ppmvd for firetube type ≤ 100 ppmvd for watertube type
Atmospheric Unit ¹	≥ 2 and ≤ 10	12 ppmvd	400 ppmvd
Digester Gas	≥ 2 and < 75	15 ppmvd	≤ 100 ppmvd
Landfill Gas	≥ 2 and < 75	25 ppmvd	≤ 100 ppmvd

¹ Atmospheric unit means any natural gas fired unit with a heat input less than or equal to 10 million Btu per hour with a non-sealed combustion chamber in which natural draft is used to exhaust combustion gases.

BACT for SO_x and PM for all categories is the exclusive use of PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases.

Offsets

Stationary sources may also be subject to District offset requirements. Offsets are an emissions reduction necessary to mitigate an emissions increase of an affected pollutant and are required from a new or modified stationary source that has the potential to emit greater than or equal to the 137 lbs/day of NO_x or VOCs. A stationary source may be exempt from offsets if the facility's actual emissions are less 10 tons/year.

Additional Information

Should you have any questions regarding the permit applicability for your boiler or steam generator, please contact the District's Engineering Division at (831) 647-9411. The Engineering Division can also provide you with permit application forms and permit application fee sheets to commence the permitting process for your proposed facility.