

Rule 474

Fuel Burning Equipment – Oxides of Nitrogen

- (a) A person shall not discharge into the atmosphere from any non-mobile fuel burning equipment, oxides of nitrogen, expressed as nitrogen dioxide (NO₂), calculated at three percent oxygen on a dry basis averaged over a minimum of 15 consecutive minutes, in excess of the concentrations shown in the following table:

Maximum Gross Heat Input Rate in Millions Per Hour						
Fuel	Kilogram-Calories	British Thermal Units	Kilogram-Calories	British Thermal Units	Kilogram-Calories	British Thermal Units
	140 or more but less than 450	555 or more than 1786	450 or more but less than 540	1786 or more than 2143	540 or more	2143 or more
Gas	300 ppm NO _x		225 ppm NO _x		125 ppm NO _x	
Liquid or Solid	400 ppm NO _x		325 ppm NO _x		225 ppm NO _x	

- (b) A person shall not discharge into the atmosphere from steam generating equipment, oxides of nitrogen dioxide (NO₂), calculated at three percent oxygen on dry basis averaged over a minimum of 15 minutes, in excess of the concentrations shown in the following table:

Maximum Gross Heat Input Rate in Millions per Hour		
	Kilogram-Calories	British Thermal Units
	140 or more	555 or more
Gas	125 ppm NO _x	
Liquid or Solid	225 ppm NO _x	

The provisions of this subsection shall be effective only in San Bernardino and Riverside Counties.

- (c) When more than one type of fuel is used, the allowable concentration shall be determined by proportioning the gross heat input for each fuel to its respective allowable concentration.
- (d) Notwithstanding the provisions of subsection (a), a person operating a supercritical steam generating unit with a maximum gross heat input exceeding 2143 million BTUs per hour may discharge oxides of nitrogen into the atmosphere not to exceed 400 ppm calculated at three percent oxygen on a dry basis averaged over a minimum of 15 consecutive minutes during the pressure ramp periods of the boiler startup operations.

- (e) For the purpose of this rule:
 - (1) FUEL BURNING EQUIPMENT shall be comprised of the minimum numbers of boilers, furnaces, jet engines or other fuel burning equipment, the simultaneous operations of which are required for the production of useful heat or power.
 - (2) A SUPERCRITICAL STEAM GENERATING UNIT is a steam boiler which normally operates above the water critical temperature (705°F) and critical pressure (3210 psia) where water can exist only in the gaseous phase.
 - (3) PRESSURE RAMPS are two steam pressure build-up periods, after a heat-soak period at 400 psia in the startup of a supercritical steam generating unit:
 - (A) Low pressure, 400 psia to 1000 psia, and
 - (B) High pressure, 1000 psia to 3500 psia.

[SIP: See AV Full SIP Table at <https://avaqmd.ca.gov/rules-plans>]