

Small Industrial Boilers

Table I
Identification of Performance Standards
Source Category: Small Industrial Boilers
(1 million Btu/hour to less than 5 million Btu/hour)

Regulated Component	Pollutant	Rule/Measure/Date								
		South Coast 1146.1, Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators and Process Heaters, Amended 5/13/94		Ventura 74.15.1, Boilers, Steam Generators, and Process Heaters, Amended 8/14/96						
Performance Standard										
Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters	NOx	x	30 ppm @ 3% oxygen on a dry basis, 15 minute avg, gaseous, liquid, or solid fuel	x	30 ppm @ 3% oxygen on a dry basis, 15 minute avg, gaseous or liquid fuel					
	CO		400 ppm		400 ppm					

**Table II
Identification of Performance Standards
Source Category: Small Industrial Boilers**

Rule/Measure	Rule/Measure			
	South Coast 1146.1	Ventura 74.15.1		
Exemptions	<p>1. Boilers used exclusively to produce electricity for sale</p> <p>2. Process heaters, kilns, and ovens used for drying, curing, baking, cooking, calcining, or vitrifying</p> <p>3. Waste heat recovery boilers that are used to recover heat from the exhaust of combustion turbines</p> <p>4. Unfired waste heat recovery boilers that are used to recover heat from the exhaust of any combustion equipment</p> <p>5. Units with annual heat input of equal to or less than 1,800 million Btu which install a non-resettable totalizing fuel meter for each fuel burned and are either (a) tuned twice per year or (b) or operated in a manner that maintains stack-gas oxygen concentrations at less than or equal to 3 % on a dry basis for any 15-consecutive-minute averaging period</p>	<p>1. Kilns or ovens used for drying, baking, cooking, calcining or vitrifying</p> <p>2. Unfired waste heat recovery boilers that are used to recover heat from the exhaust of any combustion equipment</p> <p>3. Fuel-fired degreasing or metal finishing equipment</p> <p>4. Units operated on alternate fuel under the following conditions: (a) alternate fuel use is required due to curtailment of natural gas service to the individual unit by the natural gas supplier - alternate fuel use in this case shall not exceed the period of natural gas curtailment (b) alternate fuel use is required to maintain the alternate fuel system - alternate fuel use in this case shall not exceed 50 hours per year</p> <p>5. Units with annual heat input of less than 1,800 million Btu which install a totalizing fuel meter for each fuel burned and are tuned every 6 months</p>		

**Table II
Identification of Performance Standards
Source Category: Small Industrial Boilers**

Rule/Measure	Rule/Measure			
	South Coast 1146.1	Ventura 74.15.1		
Applicability	Boilers, steam generators, and process heaters that are greater than 2 million Btu per hour and less than 5 million Btu per hour rated heat input capacity used in any industrial, institutional, or commercial operation	Boilers, steam generators, and process heaters with rated heat inputs equal to or greater than 1 million Btu per hour and less than 5 million Btu per hour		
Comments	SC 1146.1 and Ventura 74.15.1 are the only district rules in this category	As of May, 1993, there were several manufacturers of replacement burners for small boilers who displayed emissions well below the 30 ppm limit. These burners were less expensive than the previous technology that met 40 ppm. The 30 ppm limit required retrofitting affected boilers and heaters with emission controls such as low-NOx burners, flue gas recirculation, O ₂ trim, and clean fuels. A reduction of about 65 t/y NOx from 175 known units was projected for Rule 74.15.1.		