



FACT SHEET - Rule 2.44

CENTRAL FURNACES

New Rule Limits Begin January 1, 2010

Background Information

On May 13, 2009, the Yolo-Solano Air Quality Management District (District) adopted Rule 2.44, Central Furnaces. The rule is designed to reduce emissions of nitrogen oxides (NO_x) and Particulate Matter (PM) from natural gas-fired central furnaces.

Since NO_x is one of the main components of ozone, this rule may have the important co-benefit of reducing the formation of ozone and fine particles both of which pose significant public health threats. NO_x reductions will also help move the District towards meeting ozone attainment goals for the region.

Who is Affected?

Rule 2.44 is enforced at the point of sale, which means that manufacturers, distributors, retailers, and installers of natural gas-fired central furnaces are prohibited from selling, distributing, or installing units that are not compliant with the rule. There is no requirement to retrofit or change-out existing units.

What Equipment Units are Subject to Rule 2.44?

The equipment units that are subject to the rule are defined as follows:

- Natural gas fired central furnaces with a rated heat input capacity less than 175,000 British thermal units per hour (Btu/hr) and
- Combination heating and cooling units with a cooling rate less than 65,000 Btu/hr

What are the Emission Limits?

Units subject to the rule are restricted from emitting more than 40 nanograms per Joule of heat output of NO_x.

What Units are Exempt from the Rule?

Rule 2.44 does not apply to: • units installed in manufactured homes • units that use fuels other than natural gas

How to Verify a Unit Meets the Emission Requirement

The labeling component of the rule requires manufacturers to display the model number of the unit on the shipping carton and rating plate of the equipment.

Health Effects

Scientific evidence links short-term NO_x exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects including airway inflammation in healthy people and increased respiratory symptoms in people with asthma.

PM, a complex mixture of extremely small particles and liquid droplets, is made up of several components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are 10 micrometers in diameter or smaller can pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects such as asthma attacks and decreased lung function.