

## **Replacing Your Hot Water Boiler – Is it the Law?**

**By Tom Squier**

There has been a lot of confusion – so let's start with some facts. It's not a law, but a rule (1146.2) from South Coast Air Quality Management District (SCAQMD). The agency was established to monitor, regulate and create the guidelines for the reductions of harmful emissions (oxides of nitrogen) into the atmosphere. So what does that have to do with me and my hot water boiler?

1. Water heaters and boilers are a primary contributor to the smog (NOX) problem and second only to automobiles.
2. The rule went into effect in 2000 by requiring all new heaters to meet the new smog guidelines of 55 PPM for heater below 4000,000 BTU. You can visit the website at [www.aqmd.gov](http://www.aqmd.gov) to view specific heater requirements.
3. The rule also has a provision for retro-fitting of all existing heater (most apartments fall in this category). The time table was set for 2006 with larger units being required first (like hospitals, school, and industrial application) then annually work their way down to the 4000,000 BTU. The prospect of having to replace a working piece of equipment at a cost of \$5,000 to \$15,000 met with some obvious resistance by countless apartment owners. The SCAQMD, seeing the error of their ways, has modified the rule to allow a 15 year grandfather clause for these buildings with newer heaters.
4. One exception included heaters manufactured before 2001 and below 400,000 BTU'S. Also, any heater which is used less than 9,000 therms per year can be exempted with the use of non-reset able individual gas meter.
5. Some other issues to consider when you get your new heater. Many systems were instantaneous (without storage) and will need a tank when the new heater is installed. Just like automobiles, heaters have become very complicated. They can be unforgiving and environmentally sensitive. That having been said, it is sufficient water, vent, gas and electrical supply for a correct installation.
6. Stay with me – we're almost home. You now have to decide on a heater, checked all the necessary related equipment, had your licensed (C-4) and properly insured contractor install your heater for 20 years of trouble-free reliable service. Not quite – these heaters have lots of additional equipment (blowers, filters, igniters, sensors, controls) which will need regular maintenance to ensure proper operation.
7. Finally some good news – A properly installed, well maintained heater will give you years of reliable service and should reduce your gas bill by generally 10%. If the heater is at least 84% thermal efficient it may be eligible for a \$1,500 gas company rebate.

*Tom Squier has been in the industry since 1981 and is president of Pacific Energy Service, Inc. For questions call 800-432-9016.*