



**PARKER BOILER CO.**

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**PARKER SUMMARY OF SCAQMD AIR QUALITY RULES  
FOR BOILERS, WATER HEATERS & PROCESS HEATERS  
SCAQMD RULES 1146.2, 222 and 219**

**BACKGROUND**

The South Coast Air Quality Management District (SCAQMD) has jurisdiction of stationary emission sources in all of Orange, most of Los Angeles and Riverside Counties, and a portion of San Bernardino County. Rule 1146.2 governs boilers and hot water heaters from 75,000-2,000,000 BTUH. Rule 222 requires registration of boilers between 1,000,000-2,000,000 BTU.

Per Section III. SCAQMD Rule 219 requires boilers over 2,000,000 BTUH to obtain a permit. The requirements for boilers over 2,000,000 BTUH can change, and we recommend you review Section III and contact the District for specific boiler requirements. The following is our latest explanation of these Rules and of our capabilities to provide equipment to meet these Rules.

**I. SCAQMD RULE 1146.2**

**IA. NEW BOILERS FROM 75,000-2,000,000 BTUH (1.8-48 HP)**

- From January 1, 2000 to January 1, 2010, all new boilers and water heaters sold in the SCAQMD with an input of 400,000 to 2,000,000 BTUH (10-48 HP) had to be certified to 30 PPM NOx and 400 PPM CO @ 3% O<sub>2</sub> (Type 2 Units).
- As of January 1, 2010, this NOx level was changed to 20 PPM and 400 PM CO @ 3% O<sub>2</sub> for Type 2 Units.
- As of January 1, 2001, all new boilers and water heaters sold in the SCAQMD from 75,000 to 400,000 BTUH (1.8-10HP) must be certified to 55 PPM NOx and 400 PPM CO @ 3% O<sub>2</sub> (Type 1 Units).
- On January 1, 2012 the NOx level will change to 20 PPM and 400 PPM CO @ 3% O<sub>2</sub> for Type 1 Units.

**ALL PARKER LOW NOx UNITS IN THIS SIZE RANGE ARE CERTIFIED.**

**IT IS ILLEGAL TO OFFER FOR SALE ANY NON-CERTIFIED UNIT IN THIS RANGE!**

**IB. EXISTING UNITS FROM 400,000-2,000,000 BTUH (10-48HP)**

The following summarizes the requirements for existing units and retrofit provisions:

**Phase 1** By July 1, 2002 all existing boilers in the field with an input of 1,000,000 to 2,000,000 BTUH (24-48HP) should have been retrofitted to Low NOx or been replaced with a new Low NOx unit if they were manufactured prior to 1992, and they did not qualify for an exemption.

**Phase 2** By January 1, 2006 all existing boilers in the field with an input of 400,000 to 2,000,00 BTUH (10-48 HP) should have been retrofitted to Low NOx or replaced with a new unit if they were manufactured prior to the year 1992(i.e. 1991 & before) and they do not qualify for an exemption.

**Phase 3 Staggered compliance Dates:** Up until the year 2014 staggered compliance based on the date of manufacture is required per the following schedule for units from 400,000-2,000,000 BTUH (10-48HP). This schedule allows a 15 year useful life on the unit.

1992-Units January 1, 2007 compliance date	1993-Units-January 1, 2008 compliance date
1994-Units-January 1, 2009 compliance date	1995-Units-January 1, 2010 compliance date
1996-Units-January 1, 2011 compliance date	1997-Units-January 1, 2012 compliance date
1998-Units-January 1, 2013 compliance date	1999-Units-January 1, 2014 compliance date

**Exemptions & Options**

1. The retrofit requirement does not apply to a unit burning less than 9,000 therms per year of gas, if the user can prove this. The facility gas bill, a dedicated fuel meter, or an hour-meter may be utilized to prove the therm exemption.
2. Residences and multiple residences with up to 4 units are exempt.
3. Units located at Reclaim Facilities are exempt. Different rules may apply.
4. De-rate: It may be possible to de-rate your unit to change its 1146.2 category.

5. LPG fired units are exempt.

#### **IC. 1146.2 COMPLIANCE RULES FOR BOILERS: RECORD KEEPING AND MAINTENANCE**

1. A new Low NOx certified boiler or a retrofit may be a viable option for an owner of a non compliant unit.
2. Parker Boiler Service Department can perform SCAQMD certified retrofits on Parker Boilers.
3. The Rule includes a requirement that the owner of a Type 2 Unit (400,000-2,000,000 BTU) perform maintenance in accordance with the manufacturers' recommendations. Also, the owner must possess the operation and maintenance manual and must maintain a record of maintenance activity on the boiler for the last 3 years (Parker Boiler recommends our boilers (for Rule 1146.2) be tuned once a year). Normal maintenance activity for the particular boiler should also be done by the Owner).

#### **II. SCAQMD RULE 222**

##### **FOR BOILERS FROM 1,000,000-2,000,000 BTUH (24-48 HP)**

Rule 222 requires that the owner of a boiler from 1,000,000-2,000,000 BTUH Input (24-48 HP) register with the District for a fee. The compliance date for registration was January 1, 2001. For new certified equipment, this is one-time fee. For older non-certified equipment, annual charges may be assessed.

#### **III. SCAQMD RULE 219**

##### **FOR NEW BOILERS >2,000,000 BTUH (48 HP) / PERMIT REQUIREMENTS/AND BACT (BEST AVAILABLE CONTROL TECHNOLOGY)**

Any new boiler or water heater larger than 2,000,000 BTUH installed in the SCAQMD, must be issued a Permit to Construct and Operate from the SCAQMD. This process can take 2- 6 months.

Part of the Permit process regards evaluating and assigning a required NOx and CO Emission to a boiler. On October 20, 2000, the SCAQMD Board passed an amendment to Rule 1302. Part of the amendment creates a differentiation between major and minor sources regarding the determination of BACT (or the required NOx level on a boiler).

This amendment states the BACT level required for a minor source for an atmospheric type boiler from 2,000,000 BTU (48 HP) to 20,000,000 BTUH is 12 PPM NOx and 100 PPM CO @3% O<sub>2</sub> (for a Water Tube Boiler). For sealed combustion units this NOx level may be lower.

For major sources the NOx and CO level required depends on a BACT Evaluation conducted on a case-by-case basis.

Major Sources or Title V Reclaim Facilities are larger polluting facilities, which are listed by the SCAQMD. The 12 PPM NOx level is for minor sources only; major sources may require a lower NOx level.

Due to the quickly changing NOx and BACT Levels, we feel it is imperative to apply for and obtain a permit from the SCAQMD, or other governing Districts, early in the planning stages so that the required NOx Level is known, as Low NOx emission systems may have a significant impact upon project cost, building, space, and utilities.

#### **IV. MONITORING FOR BOILERS OVER 2.0 MM**

As of July 1, 2009 the SCAQMD adopted stringent boiler exhaust gas testing "monitoring". Please contact Parker for specific recommendations on this requirement.

#### **V. NEWS RELEASE**

##### **PARKER BOILERS SCAQMD CERTIFIED TO RULE 1146.2 & ARE ACHIEVING LESS THAN 12 PPM NOx**

Parker Boiler was the first manufacturer to receive SCAQMD 1146.2 Certification for a series of boilers. As of May 1999, our Boilers were officially certified. We also maintain this certification in other Districts.

Parker is known as one of the leaders in Low NO<sub>x</sub> Technology and we have numerous boilers source tested and on line achieving less than 12 PPM NOx. Some 12PPM Ultra Low NOx Systems have been in the field since 2000.

Being the first Boiler Manufacturer to obtain 1146.2 Certification and to obtain a nationally recognized Test Lab Certification on our Low NOx equipment, as well as meeting the most stringent NOx Standards demonstrates Parker's leading technology and ability in the Low NOx boiler field.