



Complying With Rule 1147

– NOx Reductions from Miscellaneous Sources

APPLICABILITY:

Facility Owners and Operators of Paint
Spray Booths Equipped With Natural
Gas Fueled Make-Up Air Heaters

PURPOSE:

To identify affected equipment, applicable emission
limit and frequently asked questions (FAQ)



SCAQMD Rule 1147 Frequently Asked Questions (FAQs)

How do I determine if my spray booth is subject to Rule 1147?

Unless specifically exempt from the rule, any combustion equipment that is not exempt from a permit and is not subject to a source-specific NOx limit is subject to Rule 1147.

If uncertain, you can contact **SCAQMD Small Business Assistance Office at (800) 388-2121** or ask for **SCAQMD Compliance at (909) 396-2000** to be connected to the team that is responsible for inspecting your business. Alternatively, you can request feedback from the local gas utility or your consultant to help evaluate your equipment and process.

How do I determine if my spray booth has NOx emission less than 1 pound per day?

Several options are available:

1. For spray booths rated between 325,000 to 1,200,000 BTU/HR, refer to Table 1 for low use limits
2. Standard natural gas usage is less than 7,692 standard cubic feet per day (Consult local gas utility)
3. Call the **Combustion Hotline at (909)-396-3419** to inquire on the calculations estimating your maximum permitted emissions (potential to emit)
4. Refer to past emission tests to estimate daily emissions

Is a list of companies that perform emissions testing available?

The SCAQMD does provide a list of companies that are prequalified. Just go to <http://www.aqmd.gov> -> "Business Programs" -> "Laboratory Approval"

When is my spray booth subject to Rule 1147 emission limits?

All new permitted spray booths rated at $\geq 325,000$ BTU/HR are required to demonstrate compliance with the NOx emission limit. Existing permitted units with emissions less than 1 pound per day must demonstrate compliance with the emission limit at 35 years of age, when the combustion system is modified or replaced, or when the spray booth burner is replaced. However, there are a number of options available in the rule to delay compliance dates. These options for delaying compliance dates are found in the following sections of Rule 1147: (c)(15) and (c)(16) for < 1 pound/day units, and (c)(14) for any applicable units.

Is there an alternative compliance option for operators of multiple pieces of applicable equipment?

Yes there is! Owners or operators of facilities with three or more in-use spray booths required to demonstrate compliance with the emission limit within two consecutive calendar years may submit an alternate compliance plan to phase-in compliance of all units. The compliance plan shall be submitted at least 270 days prior to the date the first unit is required to demonstrate compliance. For more information, please refer to Rule 1147(c)(14)(A).



SCAQMD Rule 1147

This pamphlet provides a summary of Rule 1147 requirements and compliance options including amendments adopted in July 2017 specific to owners and operators of paint spray booths equipped with natural gas fueled make-up air heaters.

Adopted by the South Coast Air Quality Management District (SCAQMD) Governing Board on December 5, 2008 with a compliance schedule phased in over 10 years. The purpose of this rule is to reduce nitrogen oxide emissions from gaseous and liquid fuel fired combustion equipment

Amended in July 2017 to provide additional compliance flexibility for units with NOx emissions of less than 1 pound per day

Affects manufacturers, sellers, and owners of combustion equipment that are not subject to rules that affect boilers, liquid process heaters, turbines, and engines

Regulates ovens, dryers, furnaces, afterburners, incinerators, and other equipment used in a variety of processes. Examples of processes regulated by the rule include metal casting, forging, heat treating, coating and curing operations, drying, asphalt manufacturing, and printing operations

Please Note:

- 1) It is very likely that your heated spray booth emits less than 1 pound NOx per day
- 2) This pamphlet is for information purposes only and does not supersede rule requirements

TABLE 1:
Small and Low Use Spray Booth Daily Operating Limits

Unit Rating (BTU/Hour)	Daily Hour Limit	Monthly Hour Limit
325,000 to 400,000	16	352
400,001 to 500,000	14	308
500,001 to 800,000	8	176
800,001 to 1,000,000	6	132
1,000,001 to 1,200,000	5	110

TABLE 2:
NOx Emission Limit for Spray Booths with Heat Ratings \geq 325,000 BTU/hour

Equipment Category	NOx Emission Limit PPM @ 3% O2 Dry Or Pound/mmBtu heat input
Make-Up Air Heater or other Air Heater located outside of building with temperature controlled zone inside building	30 ppm or 0.036 lb/mmBtu

TABLE 3:
Compliance Schedule for In-Use Spray Booths with NOx Emissions of One Pound per Day or More

Unit with Emissions \geq 1 Pound/Day	Submit Permit Application	Unit Shall Be in Compliance
Spray booth make-up heater manufactured after 1997	December 1 of the year prior to the compliance date	July 1 of the year the unit is 15 years old

MAKE-UP AIR HEATER means a **UNIT** used to heat incoming air in order to maintain the temperature of a spray booth, container, room or other enclosed space and to provide breathable air for a person who may be present during operation.

