



TECHNICAL BULLETIN

PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

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B-35

Masonry Fireplaces

INTRODUCTION

The emission requirements for fireplaces in the unincorporated area of Sonoma County are regulated by the Northern Sonoma County Air Pollution Control District in the northern part of the county and the Bay Area Air Quality Management District in the southern part of the county. The Northern Sonoma County Air Pollution Control District has its own set of regulations relating to masonry fireplaces. In the south, masonry fireplaces are regulated by County Code Chapter 7C. This ordinance was passed by the Board of Supervisors to make the requirements for masonry fireplaces consistent throughout the county. The purpose of this technical bulletin is to clarify the requirements for masonry fireplaces, in particular the following questions:

- Can a masonry fireplace with a chimney suitable for burning wood be constructed in Sonoma County?
- If so, what devices, if any, may be installed in such fireplaces to make them comply with the Northern Sonoma County Air Pollution Control District regulations and with County Code?
- Who enforces these regulations when application is made for a building permit?

APPLICABLE REGULATIONS

The applicable sections of County Code read as follows:

In addition to meeting the requirements of the Bay Area Air Quality Management District and related codes and policy guidelines adopted by the state, the installation and replacement of wood-burning appliances shall meet the following requirements:

(a) It shall be unlawful to install a wood-burning appliance unless it is one of the following:

1. A pellet-fueled wood heater,
2. An EPA certified wood heater, or
3. A wood-burning appliance approved for use by the Northern Sonoma County Air Pollution Control District.

“Wood-burning appliance” means any fireplace, wood heater, or pellet-fired wood heater or any similar device burning any solid fuel used for aesthetic or space-heating purposes.

Gas fireplace means any device that burns natural or liquid propane gas as its fuel through a ceramic or otherwise non-combustible gas log that is permanently installed in the device. As used herein, permanently installed means the burn pan and associated equipment cannot be removed from the masonry or metal base of the device.

The applicable portions of the Northern Sonoma County Air Pollution Control District regulations read as follows:

This regulation shall apply within the boundaries of the Northern Sonoma County Air Pollution Control District as defined in Regulation 1 (Rule 100) to any person who owns, operates, or who plans to install, build, own, or operate, a wood fired appliance. Gas fired fireplaces, as defined herein, are not subject to this regulation. Cook stove, boilers and furnaces as defined in CFR are also not subject to this regulation. “Wood fired appliance” means any fireplace, or wood fired heater that burns wood, pelleted wood or any other non gaseous or non liquid fuels, or any similar device burning any solid fuel used for aesthetic or space-heating purposes, and which has a heat input less than one million British thermal units per hour. “Gas fired fireplace” means any device that burns natural or liquid propane gas as its fuel through a ceramic, or otherwise non combustible gas log that is permanently installed in the device. As used herein, permanently installed means the burn pan and associated equipment cannot be removed from the masonry or metal base of the device.

A. Emission Standard:

A District approved wood fired appliance shall be EPA or District certified and emit less than or equal to 7.5 grams particulate per hour for a non catalytic wood fired appliance or 4.1 grams per hour for a catalytic wood fired appliance.

TECHNICAL DETAILS GAS FIREPLACES

Both of the regulations clearly prohibit the construction of a “wood fired appliance” as defined therein. However, neither of the regulations prohibit the construction of a gas fired fireplace, as defined therein. So it would appear that a masonry fireplace with a standard masonry or metal chimney with a listed gas log permanently installed clearly meets the definition of a gas fired fireplace. However, “permanently installed” is a problematical phrase, since in one sense, nothing is permanent. However, in the construction industry, “permanent construction” is usually considered to be connected together by nails, screws, bolts, rivets, or welds. This ambiguity led to a situation where masonry fireplaces with a standard masonry or metal chimney were installed with gas logs. To clarify this ambiguity, the Board of the Northern Sonoma County Air Pollution Control District issued the attached clarification.

Policy on Permanent Gas Log Fireplace Installations

In 1993 the Board approved District Regulation 4, Control Measure for Wood Appliance Emissions, to reduce emissions of inhalable particulate matter from woodfired appliances and masonry fireplaces. Air monitoring data since adoption of the rule shows a steady decrease in the levels of particulate in ambient air, indicating that the overall approach of Regulation 4 is effective.

Since the adoption of Regulation 4, however, the District has received questions about the precise definition of the term “permanent” as it applies to gas log installation. This has typically been asked when the gas log installation involves the use of a standard zero clearance style fire box safety listed for wood fuels. Initially, staff expected that components of the gas log system (the firepan and the plumbing) would be physically fixed into the hearth design. Design and safety constraints have rendered these solutions infeasible.

The District therefore establishes the following definition for “permanent” gas log fireplace installations, for the purposes of determining applicability and compliance with Regulation 4:

“A permanent gas log fireplace installation is an installation that uses only components (firebox, gas

burner, logs, firepan, vents etc.) that are safety rated and listed only for gas fuels such as propane or natural gas.”

This policy is effective immediately and should be applied to any plans or projects submitted for review and subsequent inspection after Board approval of this Policy. Any conversion of a gas log installation to a wood burning installation by removal of the gas log systems is a violation of District regulations. Such violations are subject to enforcement actions under the Health and Safety Code and, where applicable, the Business and Professions Code.

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Based on this definition, the construction of a masonry fireplace with a standard masonry or metal chimney is prohibited for use with a gas appliance in the northern part of the County. The entire assembly, including the firebox and chimney, must be listed only for gas appliances.

Since it was clearly the Board of Supervisors’ intent to make the regulations consistent throughout the county, it is PRMD policy that this definition of “permanently installed” applies to the southern half of the county as well.

TECHNICAL DETAILS EPA APPROVED WOOD BURNING APPLIANCES

Both sets of regulations permit the installation of EPA approved wood burning appliances. However, many EPA approved appliances are designed to function with a masonry fireplace with a standard masonry or metal chimney. Therefore the construction of masonry fireplace with a standard masonry or metal chimney is permitted when an EPA approved wood burning appliance is connected to it in accordance with the listing and the manufacturers installation instructions.

SUMMARY

The construction of a masonry fireplace with a standard masonry or metal chimney is prohibited for use with a gas appliance. Unless the assembly, including the firebox and chimney, is listed for a gas appliance.

Building plan checkers are responsible of insuring that these requirements are shown on the plans for all fireplaces.