

December 2, 1997

Jim Buckley
Buckley Rumford Company
1035 Monroe Street
Port Townsend, Washington 98368

Subject: Notification of Denial of District Approval for Buckley Rumford 30-Inch and 48-Inch Fireplaces

Dear Mr. Buckley:

The District has reviewed the Test Results for the Buckley Rumford 30-Inch and 48-Inch Fireplaces submitted for District approval by OMNI Environmental Services, Inc. on January 29, 1997. Based on this review, the request for listing these units as District-approved devices has been denied.

Comments:

1. Subsection G.1.c of District Rule 504, Residential Wood Combustion, requires that particulate emissions be less than or equal to 7.5 grams per hour (g/hr). Neither the 30-inch nor the 48-inch designs meet this requirement. Omni reported average particulate emissions of 18.27 g/hr for the 30" model and 24.71 g/hr for the 48" model.
2. The Washington State Test Protocol is not acceptable for determination of g/hr particulate emission rates. The Washington Protocol requires that emissions sampling continue as long as the difference between flue gas and ambient temperatures is greater than or equal to 25°F. This criteria keeps the samplers operating after the fire has stopped and no combustion is taking place as indicated by ambient O₂ levels. In the closed door configuration sampling times of 9.08 and 13.42 hours duration were used to determine the particulate emission rates.
3. The Buckley Rumford fireplaces are not defined as "masonry heaters" and therefore the masonry heater particulate emission factor of 6.0 g/kg in Colorado Regulation 4, Subsection IV.B.2 does not apply to these devices. Under Colorado Regulation 4, the installation of devices other than masonry heaters (including fireplaces) must meet similar criteria to District Rule 504 including the EPA standard of 7.5 g/hr for approval as a clean burning device.

George Erdman with Northern Sonoma County APCD is close to proposing a test protocol that can be used for the determination of particulate emission rates from fireplaces. We have worked together on this project for over three years and I feel the end result is near. The duration of the emissions sampling cycle will be determined by O₂ levels which should be more indicative of continuing combustion than a temperature differential. This protocol should be able to determine whether the Buckley Rumford fireplace models are truly clean-burning devices.

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In the meantime, the Buckley Rumford fireplace models may be installed as dedicated gas-fired fireplaces in accordance with District Rule 504, Subsection G.1.e.

You will not be charged a fee for this past technical review for listing as a District-approved wood burning device. However, future submittals will be billed on an hourly basis for District staff time spent preparing technical reports related to the approval or disapproval of wood burning devices. Currently staff time is billed at the rate of \$40.00 per hour. For your reference, I would estimate that a review of this type would require between four and ten or more hours, depending on the amount of time needed for review, clarification, and interaction between staff and applicant, including phone time.

If you have any questions you may call me at 781-5912.

Sincerely,

Paul L. Reitz
Air Pollution Control Engineer

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