

Attachment F

A Requirement for Significant Reduction in the Maximum BTU Input Rate of Decorative Vented Gas Fireplaces Would Impose Substantial Burdens on Manufacturers

A requirement to reduce the BTU input rate of existing decorative vented gas fireplace products would impose substantial burdens on the manufacturers of such products.

The use of restrictor plates or similar devices to restrict fuel flow is not an option, because a simple restriction of fuel flow would have the effect of reducing both the upper and lower end of a product's operating BTU input range, with the result that the product's minimum BTU input rate would fall below the range at which the product was designed to operate and at which safety testing has been conducted. This reduction in the product's minimum BTU input rate would alter the combustion characteristics of the product and could easily create safety concerns related to increases in carbon monoxide levels and difficulties in sustaining stable combustion.¹ Because of this potential for safety problems, safety testing and recertification of the product would be required, and in many cases the product would need to be substantially redesigned in order for required safety standards to be achieved. In most cases, the only way to reduce a product's maximum BTU input rate *without also* creating the problems associated with a reduction in the product's minimum BTU input rate is to modify the product's burner and valve pressures. These are significant design changes that would also alter the lighting and combustion characteristics of the product, and they would automatically trigger the need for safety testing and recertification of the product.

In addition, it is important to recognize that the maximum BTU input rate of a decorative vented gas fireplace is itself a key design parameter with potentially significant impacts on product safety and performance. In particular, vented gas fireplaces may be designed for ignition at their maximum BTU input rate; as a result, any reduction in the maximum BTU input of a product could alter the ignition conditions for which the product was designed (e.g., by reducing or delaying the flow of gas to some ports), creating the potential for significant safety concerns including the risk of explosions resulting from delayed ignition. In addition, decorative vented gas fireplaces are typically designed to provide optimum aesthetic performance (i.e., optimum flame size and appearance) when they are operating at or near their maximum BTU input rate. For this reason, any significant reduction in the maximum BTU input of such a product would directly impair its aesthetic performance and thus compromise its viability in the market.

¹ In this regard, it is important to understand that decorative "yellow flame" products have a different combustion curve than "blue flame" products such as furnaces. Specifically, in "yellow flame" products, lower input rates typically produce higher carbon monoxide levels that can easily exceed safety requirements.