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Proposed Energy Efficiency Standards for Gas Hearth Products - Comments from the R H Peterson Company

Additional submitted attachment is included below.

California Energy Commission

Docket Number 18-AAER-06

Proposed Energy Efficiency Standards for Gas Hearth Products

Comments from the R. H. Peterson Company

Introduction

The R. H. Peterson Company appreciates the opportunity to provide comments to the California Energy Commission (CEC) in response to the draft staff report: Analysis of Proposed Efficiency Standards and Marking for Gas Hearth Products" dated May 2019.

The R. H. Peterson Company is among the larger manufacturers of vented gas logs in the United States. Founded in 1949, the Peterson Company has been operating in Southern California for more than 70 years. A relatively small business, the Peterson Company employs approximately 275 people who all live in California. Pertinent to the proposed standards, Peterson also manufactures outdoor fireplaces and fireplace inserts.

Peterson submits these comments to the California Energy Commission on the Proposed Energy Efficiency Standards for Gas Hearth Products (18-AAER-06)

Comments

Recommendation: The R.H. Peterson Company recommends that gas log sets be removed from the Proposed Efficiency Standards for Gas Heath Products.

Discussion: Vented gas logs have been a part of California homes since 1949 when the R.H. Peterson Company was established.

Vented gas logs are a decorative product designed to replicate a wood burning fire, yet with cleaner burning, safer burning, greater ease of use, more economical operation and the ability to light the fire when desired and extinguish immediately.

Vented gas logs can only be installed in existing wood burning fireplaces. Thus, the consumer must already have a fireplace capable of burning wood before they can install a gas log set. This introduces restrictions to any effort to redesign vented gas logs. Because the fireplace opening is not within Peterson's control, Peterson's gas log offering must be capable of working in a wide variety of very different fireplace geometries. Front and rear widths, depth, height, damper placement, flue size, throat configurations, etc., vary from one fireplace to another. Because all of Peterson's vented gas logs are designed to be installed in existing wood burning fireplaces, it is

very unlikely that the fireplace will have an electrical supply. There are only limited choices to obtain electronic ignition systems that will function reliably in the high heat environment inside a wood burning fireplace.

Peterson manufactures sets as small as 12" and as large as 72" to fit into fireplaces from 16" to over eight feet wide. A vented gas log set must resemble wood and the flames must be visible, proportional and span the width of the fireplace.

The market for gas log sets is shrinking. The number of single-family homes built in California has declined and the installation of wood burning fireplaces in those homes has declined even faster (in fact, most of the state now prohibits their installation).

There is very little or no energy saving to be obtained from regulating vented gas log sets. Vented gas logs sets do not compete with most other gas hearth products. Rather, they compete with wood or wood/wax firelogs.

1) When wood is burned, the flue must be kept open for a period of time as the fire is built and for an extended period of time after the fire dies down as embers and coals keep burning. This means that the flue will likely remain fully open overnight to ensure the products of combustion exit the house.
2) During a fire, wood burning uses about three times the cubic feet per minute of conditioned room air as compared to a vented gas log.
3) Because of the instant on/off capability of a vented gas log set and the documented use pattern of decorative hearth products, (i.e., about 37.5 hours per year), little or no energy savings could be achieved through discouraging or eliminating the installation of gas logs in wood burning fireplaces.

The California Energy Commission staff is recommending that "Continuous pilots and continuous pilots with the capability of being switched to a different pilot type are prohibited in vented decorative gas fireplaces, vented heating gas fireplaces, vented gas logs, outdoor gas logs and outdoor fireplaces." Less than 22% of the vented gas logs sold by the Peterson Co. in California (both for indoor and outdoor use) have standing pilots. Standing pilots on vented gas logs burn at a 562 BTU/hour rate. It is estimated that between 60% and 70% of consumers who own gas logs with standing pilots in their fireplaces burn their pilots seasonally only (i.e., they shut down their pilots when the fireplace season ends). Given the above facts, it seems that very little gas savings would result in banning standing pilots on vented gas logs sets and the potential negative impact on the California air quality would be significant as consumers would be discouraged from switching from wood burning to gas logs.

The ban of standing pilots on vented gas log sets would mandate match lit gas logs or electronic intermittent pilot ignition (IPI) systems. Mandating IPI systems on all non-match lit gas log sets would lead to:

1) Increased manufacturer certification costs
2) Increased product costs to the consumer resulting in safety control systems for gas logs 265% higher than standing pilot systems (Most common standing pilot system sold by Peterson retails for $151; most common IPI system retails for $551).
3) Increased installation costs
4) Fewer wood burning fireplaces receiving the benefits of conversion to gas log sets, particularly from those lower income and fixed income families.
5) Minimal energy savings

Finally, vented gas log sets also have a positive environmental impact. Study after study has determined that vented gas log sets offer positive environmental effects in terms of cleaner air being exhausted up the chimney than that being generated by wood fires. In fact, a recent study by Jim Houck, Ph.D., formerly of Omni Environmental Services revealed that, compared to a comparable wood burning fire, a gas log set emits:

1) 99% **less** solid waste;
2) 99% **less** particulate matter;
3) 98% **less** carbon dioxide;
4) 97% **less** PAH;
5) 96% **less** VOC;
6) 96% **less** formaldehyde;
7) 87% **less** benzene; and
8) 84% **less** Methane

It is for this reason that the most advanced air management districts in the country, like the South Coast Air Quality Management District (SCAQMD) in Los Angeles subsidized the transition from wood burning to the use of gas log sets. Anything that restricts or discourages the sale of vented gas log sets will undermine these beneficial environmental efforts.

Additionally, gas log sets are:

- Much safer to use (no sparks, no creosote, no chimney fires)
- Healthier (with gas logs there are no allergens, no bugs, no harmful toxins and no fine particulates to cause breathing problems)
- Cleaner (burning a vented gas log set is much cleaner that solid fuel alternatives, like wood or wood/wax firelogs – no dirty wood in the house, no sooting, no ashes)
- Convenient (instant on/off whether you want to enjoy your fireplace for two minutes or two hours with precision-controlled flames; none of the hassle of wood; easier for senior citizens and those physically challenged)

- More economical (least expensive fuel for your wood burning fireplace)
- Ecologically friendly (helps save trees)

Recommendation: The R.H. Peterson Company recommends that outdoor hearth products be removed from the Proposed Efficiency Standards for Gas Heath Products.

Discussion: The California Energy Commission staff, for the purpose of the Proposed Energy Efficiency Standards for Gas Hearth Products, has defined outdoor hearth products as outdoor fireplaces and outdoor gas logs. While proposing no efficiency standards at this time, the staff recommends the prohibition of standing pilots on these products.

Most of the preceding discussion on vented gas logs sets apply to outdoor sets and outdoor gas fireplaces and the benefits of burning those gas hearth products rather than wood will not be repeated here. It should be noted that burning wood outdoors has been a concern for California, as noted by wood burning restrictions and the recent concern of burning wood along the coast with wood burning fire pits on local beaches.

Standing pilots on outdoor hearth products in many locations are not practical because wind and other weather conditions make it difficult to keep pilots lit. Of the designated outdoor vented log sets sold by the Peterson, approximately 9% are equipped with standing pilots. The majority are match lit (76%) or equipped with an IPI system (15%). Consumer choice and preference would seem to make regulations unnecessary.

Conclusion

With minimal energy saving, the inclusion of vented gas log sets and outdoor hearth products in the Proposed Energy Efficiency Standards for Gas Hearth Products risks environmental benefits of using these products and unnecessarily restricts consumer choice. Their inclusion is not justified and therefore it is recommended that they be removed from the Proposal.

Respectfully submitted,

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