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Cooking with Gas?

I read with interest Max Sherman's recent column "Still Cooking With Gas?" in the May 2023 issue of *ASHRAE Journal*.

As much as a very much respect Max's vast amount of knowledge and experience, I was shocked he failed to mention that gas stove use produces carbon monoxide every time a pot is placed on a burner and very often during oven use. He also failed to mention methane leakage from the installation, and the 40-year technical availability of a burner that does not produce NO_x when in use that is not marketed to the public.

Just when the public finally has some idea that gas cooking is not the best fuel, especially in new construction and with the availability of induction cooking, the column does not appear to support a switch when it makes financial sense. It almost sounds like it was written to appease the ever present and powerful gas industry.



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SHERMAN RESPONDS

William rightly points out that there is presumably carbon monoxide production in the burning of natural gas, which like nitrogen dioxide can be a serious contaminant. In the May 2022 issue of *ASHRAE Journal*, my colleagues and I published a detailed analysis, "Impacts of Unvented Space Heaters," of the emissions of unvented gas equipment that considered both those contaminants. That analysis was part of the reason that ASHRAE has now prohibited unvented combustion heaters in a Standard 62.2-compliant dwelling. The key difference here is that 62.2 requires that there be a range hood, and thus cooking is not really unvented. The increase of carbon monoxide in the space, if any, would be quite small. Something can always go wrong with any piece of equipment,

of course, but that is a key reason that Standard 62.2 independently requires a carbon monoxide alarm. Thus for a 62.2-compliant dwelling, there is insufficient reason to prohibit a technology that some people get great value from—gas stoves.

William is also concerned about methane leaks, presumably because of their impact on global climate change. There are many sources of methane release into the atmosphere; gas infrastructure as whole is part of this release. I did not cover methane release in my column because the amount of methane directly attributable to gas-stove leakage is a negligible part of total methane release into the air. There are much better and more effective policy options to reduce methane releases than banning gas stoves—such as banning cows because tofu is available.

If people choose to use induction cooking, or find a more cost-effective solution, by all means they should be able to do so. They should be able to use any option that does not have such a substantial health, safety or environmental impact that it must be banned for the public good. Unlike the case of unvented space heaters in 62.2, gas stoves simply do not pass that test and should not be banned as a matter of policy.

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