



October 11, 2024

Jen Vinh  
Planning, Rule Development, and Implementation  
South Coast Air Quality Management District (SCAQMD)  
21865 Copley Drive, Diamond Bar, CA 91765  
(Submitted via email to: [jvinh@aqmd.gov](mailto:jvinh@aqmd.gov))

RE: Proposed Amended Rule 1121. Control of Nitrogen Oxides from Residential-Type, Natural Gas-Fired Water Heaters

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Dear Ms. Vinh,

On behalf of Rinnai America Corporation, we appreciate the opportunity to provide comments on SCAQMD Rule 1121. As a leading manufacturer of gas water heaters and boilers, we have a long-standing commitment to reducing emissions and improving energy efficiency. However, the proposed zero-NOx emission limitations in Rule 1121 raise substantial concerns. Specifically, by requiring zero NOx emissions, Rule 1121 effectively eliminates all gas-fired appliances from the market, leaving heat pumps as the only alternative. While most of our products, such as instantaneous water heaters and boilers, fall under Rule 1146.2, as a prominent member of the water heating industry we feel the need to oppose unreasonable standards for all types of water heaters. Such restrictions could hinder the availability of affordable and high-efficiency options for consumers. This regulatory approach is not only impractical but is also inconsistent with the needs of consumers and the current state of infrastructure in Southern California.

**Federal Preemption Under EPCA:** The proposed limitations under Rule 1121 raise serious concerns regarding federal preemption under the Clean Air Act (CAA) and Energy Policy and Conservation Act (EPCA). EPCA prohibits states from enacting their own regulations related to the energy use of covered products, which includes water heaters and boilers regulated at the federal level. Imposing state-specific NOx limits could create a regulatory patchwork that directly conflicts with established federal standards. Additionally, these unique requirements could disrupt the national market, placing undue burdens on manufacturers to produce separate models for California and the rest of the country, thus violating the Dormant Commerce Clause.

**Technical Feasibility and Lack of Alternatives:** While Rinnai supports efforts to reduce emissions, the zero-NOx requirement under Rule 1121 fails to recognize that the development of technologies like hydrogen-enriched gas and advanced low-NOx combustion systems that are still evolving. Eliminating ultra-low NOx gas-fired appliances in favor of heat pumps as the sole option ignores the substantial benefits and advancements that gas technologies have achieved in improving both efficiency and emissions performance.

The zero-NO<sub>x</sub> standard would effectively exclude gas-fired water heaters and boilers, regardless of the emissions reductions they could achieve through cleaner combustion technologies. This blanket approach stifles innovation and dismisses any potential for hybrid systems or hydrogen-enriched natural gas, both of which offer promising pathways to reducing NO<sub>x</sub> without eliminating gas-fired systems altogether.

**Economic and Consumer Impact:** From an economic standpoint, the zero-NO<sub>x</sub> rule creates significant burdens for consumers. Transitioning to heat pumps, while viable in some cases, presents substantial challenges in terms of upfront costs, installation complexity, and performance in varied climates. These costs would disproportionately affect low- and middle-income households, as well as those living in older homes not readily equipped for electric retrofits. It is vital to acknowledge that heat pumps are not a one-size-fits-all solution, particularly in colder environments where gas-fired systems offer more reliable heating.

**Grid Reliability and Infrastructure Challenges:** One of the most pressing concerns associated with Rule 1121 (as well as other rules such as Rule 1111 and 1146.2) is its impact on grid reliability. Shifting the entire burden of water and space heating to electric heat pumps will place significant strain on California's already challenged electrical grid. Recent rolling blackouts and grid instability during peak demand periods underscore the fragility of the current infrastructure. Requiring widespread adoption of electric heat pumps under these conditions will exacerbate the problem, leading to greater risks of power outages and heightened energy costs for consumers. It is imperative that any regulatory approach consider the readiness of the electric grid to handle such a drastic increase in demand.

**Conclusion and Recommendation:** Rinnai urges SCAQMD to reconsider the zero-NO<sub>x</sub> emission requirement under Rule 1121. Although the majority of our products, like instantaneous water heaters and boilers, are regulated under Rule 1146.2, we believe it is crucial, as a leading member of the water heating industry, to oppose unworkable standards that affect all types of water heaters. We recommend a more pragmatic approach that encourages the continued development of ultra-low-NO<sub>x</sub> gas technologies, hydrogen-enriched natural gas systems, and hybrid solutions that combine gas and electric technologies. These alternatives can achieve meaningful reductions in emissions without eliminating consumer choice or undermining the economic feasibility of gas-fired systems.

A balanced, technology-neutral policy that fosters innovation across a range of heating solutions will be far more effective than a zero-NO<sub>x</sub> mandate that forces a costly and premature shift to electric heat pumps. Such an approach would allow the market and our industry to continue evolving toward cleaner technologies while maintaining reliable, affordable, and efficient options for consumers.

We appreciate your consideration of these concerns and look forward to continued dialogue on how best to meet the region's environmental goals in a manner that respects both consumer needs and economic realities.

Sincerely,



Marc D. Neufcourt  
Director, Regulatory and Government Affairs