



November 1, 2021

VIA E-MAIL

Bay Area Air Quality Management District  
Attn: Jennifer Elwell  
375 Beale Street, Suite 600  
San Francisco, CA 95105

RE: Comments in in regards to proposed changes to District Regulation 9, Rule 6

Dear Ms. Elwell:

I am writing to you as a representative of Navien, Inc., the North American distributor of “Navien” branded tankless water heaters and boilers, in regards to changes proposed to District Regulation 9, Rule 6 which seeks to establish a zero nitrogen oxides (NOx) emissions requirement for gas fired water heaters and boilers.

While Navien applauds the District’s efforts to take aggressive action on reducing NOx emissions in the Bay Area, we would like to express our concerns with the plan in terms of technology feasibility and economic impact. Generally speaking, burner technology does not exist that is capable of reaching zero levels of NOx and would have to be newly developed. Significant development costs would be incurred by all manufacturers which in turn, would result in significantly higher costs to consumers compared to today’s NOx technology. Ultimately, affordability plays a crucial role in how quickly technology is adopted into the marketplace and will directly impact the speed of meaningful NOx reductions.

Aside from new technology development, has the District considered alternate options to achieve NOx reductions? One such development is the use of Hydrogen Enriched Natural Gas (HENG) which can not only reduce emissions, but also has the ability to be applied to the existing appliance base without the need for costly retrofits. While HENG on its own cannot achieve the desired zero target, it would be a significant step and would be a more realistic approach that is in line with current worldwide Hydrogen based technology development by manufacturers, gas utilities and the U.S. Department of Energy.

Given the relatively short timeframe being considered for implementation of the proposed rule, it is of our opinion that HENG will be a critical factor in achieving the District’s goals and should be strongly considered in setting achievable NOx standards. As such, Navien recommends that the District consider targeting a reduced, or “near zero” regulation, rather than a flat zero NOx target.

Thank you in advance for your consideration of our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Pirotin", is written over a light blue horizontal line.

Kevin Pirotin  
Director of Engineering & Service