



February 6, 2023

Jennifer Elwell  
Bay Area Air Quality Management District  
375 Beale Street, Suite 600  
San Francisco, CA 94105

**Re: Proposed Amendments to Regulation 9: Inorganic Gaseous Pollutants, Rule 6: Nitrogen Oxides Emissions from Natural Gas-Fired Boilers and Water Heaters**

Dear Ms. Elwell,

We write you on behalf of the Building Owners and Managers Association San Francisco and Oakland East Bay (BOMA SF and OEB) in regard to the Bay Area Air Quality Management District's (BAAQMD) proposed rule changes for Regulation 9: Inorganic Gaseous Pollutants, Rule 6: Nitrogen Oxides Emissions from Natural Gas-Fired Boilers and Water Heaters (Rule 9-6), which would prohibit the sale of NOX emitting natural-gas fired boilers and water heaters commonly found in commercial applications beginning January 1, 2031.

BOMA SF and OEB are proud to be a champion of sustainability and the effort to reduce emissions, to mitigate the impacts of air pollution, and, ultimately, to decarbonize the built environment. Through our efforts over the last several decades, the Bay Area boasts one of the most efficient commercial building stocks in the world. We offer the following comments with the hope of advancing local, regional, and statewide decarbonization policies that remain technically feasible and economically viable for our members. Please find the following concerns that we urge you to address in any final amendments to the rule.

BOMA SF and OEB support that this proposed rule change does not subject equipment to early replacement, but rather, mandates that systems be replaced at the end of their natural life. Given the large capital investments needed for commercial electrification projects, this policy will provide property owners with the necessary time to conduct the capital planning and amortization necessary to pay for these costs. BOMA SF and OEB do, however, request that BAAQMD clearly distinguish the difference between system repairs versus system replacement in any final rule change. We firmly believe that the proposed amendments should only mandate system replacement at the end of a system's useful life and not when a repair is needed.

Due to the reality that the only current zero-NOx appliances available are electric, the proposed rule changes essentially mandate electrification of large commercial buildings at time of system replacement in 2031. From a technical standpoint, this poses challenges for larger commercial buildings. This is mainly due to building design, as typical office space heating designs in our market rely on a central boiler system to feed a hot water loop at ~ 180F supply temperature to deliver space heating through perimeter terminal units in the building.

The current market presents building owners with two mediocre options for all-electric heating and cooling systems. Buildings are forced to accept being constrained by the large space requirements and high capital costs associated with air source heat pumps or must select an electric resistance option that increases energy cost and may yield worse carbon performance than a natural gas boiler plant for the foreseeable future. Furthermore, many large commercial buildings in our market are not viable candidates for heat pump technology and have no pathway to electrification other than electric resistance heat.

From a thermal equivalency, a building that uses natural gas but records an ENERGY STAR score of 90 is much more efficient than any building that is utilizing electric resistance heat technology. We fear that the efficiency losses from a policy that will lead to installations of mostly electric resistance heat will lead to major unintended consequences, including significant increases in energy demand that the grid may not be able to sustain and tremendous increases in operating costs that will likely fall on tenants. Given this challenge, we urge BAAQMD's proposed rule change to provide an exemption for any building with no feasible pathway to electrification other than electric resistance heat, as certified by a California registered Professional Engineer. Sunset dates to this exemption should be determined by availability of viable heat pump technology for large commercial buildings as well as the availability of renewable electricity to the California grid.

In summary, we believe that any final rule changes should address the following areas of concern to the Bay Area commercial real estate industry:

- Proposed BAAQMD amendments to Rule 9-6 should clarify that the rule will not apply to system repairs, and that a system only need be replaced at the end of its useful life.
- Proposed BAAQMD amendments to Rule 9-6 should provide an ongoing exemption to buildings with no feasible pathway to electrification other than electric resistance heat, as certified by a California registered Professional Engineer.

Thank you for your consideration to BOMA SF and OEB's comments on this important issue. We stand ready to assist with any feedback or clarification requested from the commercial real estate industry as it relates to these rule changes. We look forward to our continued collaboration in pursuit of policies that build a more sustainable California.

Sincerely,

John R. Bryant  
CEO, BOMA San Francisco

Julie Taylor  
Executive Director, BOMA Oakland/East Bay