How the New NOx Ban May Affect You in 2024 and Beyond

The Bay Area Air Quality Management District (BAAQMD) has amended its rules to phase out nitrogen oxide (NOx) emissions from natural gas furnaces and water heaters. The sale of new gas water heaters and furnaces in the Bay Area will be banned in 2031, with the ban taking effect over several years. Starting on January 1, 2024, the options for new gas furnaces will be limited.

What is nitrogen oxide? It is a gas that can cause respiratory problems, asthma attacks, and other health problems. It is produced when fuels are burned, especially at high temperatures. According to the EPA, it also causes acid rain, smog, elevated algae levels, and global warming. The goal of the ban is to reduce air pollution, thereby improving air quality and protecting human health.

Effective January 1, 2024, all new central forced air furnaces must meet the Ultra-low NOx standard used by other California air districts. To meet this standard, the options for replacement units will primarily be electric resistance, electric heat pump, hydronic forced air, or Ultra-low NOx gas furnaces.

By January 1, 2031, all new furnaces and water heaters will be required to meet the zero NOx emission standard. The following dates are important milestones leading up to this complete ban:

January 1, 2027 -

- All new water heaters with a BTU rating of 75,000 BTUs or less must emit zero NOx emissions. This covers most tank water heater under 74 gallons and some smaller on-demand water heaters.

January 1, 2029 -

- All new furnaces must emit zero NOx emissions. With currently available technology, new furnaces will be electric resistance, hydronic forced air, or heat pump.

January 1, 2031 -

- All water heaters between 75,000 BTU and 2 million BTU must emit zero NOx emissions. This change covers on-demand water heaters, which are often around 199,000 BTUs.

Switching to electric or heat pump water heaters and furnaces may require electrical panel upgrades in older homes with outdated electrical service. Lower-voltage models may not require an upgrade, but if the service capacity is marginal, an electrician should evaluate the system to reduce overheating risks.

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