# Air District Appliance Rules - Furnaces and Water Heaters

Amendments to two Air District rules will support improvements to regional air quality and public health —

Regulation 9, Rule 4: Nitrogen Oxides from Fan Type Residential Central Furnaces, and Regulation 9, Rule 6: Nitrogen Oxides

Emissions from Natural Gas-Fired Boilers and Water Heaters

The rule changes will not apply to gas appliances used for cooking, such as gas stoves.

The amended rules will affect Bay Area households that use natural gas appliances – roughly 2/3 of all households currently – and will:

 Improve overall regional air quality from the outdoor venting of these appliances

- Prevent up to 85 premature deaths per year
- Lower PM<sub>2.5</sub> exposure, particularly in communities of color
- Avoid up to \$890M per year in health impacts due to air pollution exposure:
  - About 60% of benefits can be achieved through elimination of NOx and secondary PM<sub>2.5</sub> emissions by switching to zero-NOx appliances.
  - About 40% of benefits can be achieved through additional elimination of primary PM<sub>2.5</sub> emissions by switching to fully zero-emission appliances.
  - Currently, the only zero-NOx appliances available are electric appliances.

### Health impacts from short- and long-term exposure

#### **NOx**

- Coughing, wheezing, difficulty breathing
- Asthma
- Increased susceptibility to respiratory infections



### $PM_{2.5}$

- Asthma and other respiratory conditions
- Neurological disease
- Heart attack
- Stroke
- Lung cancer
- Premature death







## **Compliance Timeline**

The rule amendments will apply only to new appliances, and do not mandate retrofitting of existing appliances.

2027 – only zero NOx water heaters can be sold or installed in the Bay Area.

2029 - only zero NOx furnaces can be sold or installed in the Bay Area.

**2031** – only zero NOx large commercial water heaters can be sold or installed in the Bay Area.



For more information: baaqmd.gov/building-appliances

