

## Federal and State Ambient Air Quality Standards

The U.S. Environmental Protection Agency (EPA) sets *National Ambient Air Quality Standards (NAAQS)* to protect public health and welfare from harmful effects of certain commonly occurring pollutants known as “criteria” pollutants. The EPA requires that states monitor the ambient air to determine attainment of the NAAQS and regulate industries that emit these and other pollutants.

Two types of standards have been established. **Primary standards** set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. **Secondary standards** set limits to protect public welfare which includes protection against decreased visibility, and damage to animals, crops, vegetation, and buildings.

**Ambient Air Quality Standards**

| Air Pollutant  | Hawaii Standard                               | Federal Primary Standard                     | Federal Secondary Standard              |
|--|---|--|---|
| <b>Carbon Monoxide</b><br>1-hour average<br>8-hour average   | 9 ppm<br>4.4 ppm                              | 35 ppm<br>9 ppm                              | None<br>None                            |
| <b>Lead</b><br>3-month average   | 1.5 µg/m <sup>3</sup><br>(calendar quarter)   | 0.15 µg/m <sup>3</sup><br>(running 3-month)  | Same as primary                         |
| <b>Nitrogen Dioxide</b><br>1-hour average<br>Annual average  | None<br>0.04 ppm                              | 100 ppb<br>53 ppb                            | None<br>Same as primary                 |
| <b>Particulate Matter (PM<sub>10</sub>)</b><br>24-hour block average<br>Annual average                     | 150 µg/m <sup>3</sup><br>50 µg/m <sup>3</sup> | 150 µg/m <sup>3</sup><br>None                | Same as primary<br>None                 |
| <b>Particulate Matter (PM<sub>2.5</sub>)</b><br>24-hour block average<br>Annual average                    | None<br>None                                  | 35 µg/m <sup>3</sup><br>12 µg/m <sup>3</sup> | Same as primary<br>15 µg/m <sup>3</sup> |
| <b>Ozone</b><br>8-hour rolling average   | 0.08 ppm                                      | 0.070 ppm                                    | Same as primary                         |
| <b>Sulfur Dioxide</b><br>1-hour average<br>3-hour block average<br>24-hour block average<br>Annual average | None<br>0.5 ppm<br>0.14 ppm<br>0.03 ppm       | 75 ppb<br>-<br>None<br>None                  | None<br>0.5 ppm<br>-<br>-               |
| <b>Hydrogen Sulfide</b><br>1-hour average  | 25 ppb  | None   | None                                    |

ppb = parts per billion by volume  
 ppm = parts per million by volume  
 µg/m<sup>3</sup> = micrograms per cubic meter of air