

**FACT SHEET**  
**NATIONAL AMBIENT AIR QUALITY**  
**STANDARDS FOR CARBON MONOXIDE – FINAL RULE**

**ACTION**

- On August 12, 2011, EPA issued a decision to retain the existing National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO). After careful review of the available health science, EPA concludes that the current standards provide the required level of public health protection, including protection for people with heart disease, who are especially susceptible to health problems associated with exposures to CO in ambient air.
- Carbon monoxide is a colorless, odorless gas emitted from combustion processes. Nationally, and particularly in urban areas, the majority of CO emissions to ambient air come from mobile sources. CO can cause harmful health effects by reducing oxygen delivery to the body's organs (like the heart and brain) and tissues. At extremely high levels, CO can cause death.
- Exposure to CO can reduce the oxygen-carrying capacity of the blood. People with several types of heart disease already have a reduced capacity for pumping oxygenated blood to the heart, which can cause them to experience myocardial ischemia (reduced oxygen to the heart), often accompanied by chest pain (angina), when exercising or under increased stress. For these people, short-term CO exposure further affects their body's already compromised ability to respond to the increased oxygen demands of exercise or exertion.
- The existing primary standards are 9 parts per million (ppm) measured over 8 hours, and 35 ppm measured over 1 hour.
- EPA is making changes to the ambient air monitoring requirements for CO. The new requirements are expected to result in approximately 52 CO monitors operating near roads within 52 urban areas as part of the overall CO monitoring network.
- There are no secondary (welfare-based) NAAQS for CO due to a lack of evidence of direct effects on public welfare at ambient concentrations. EPA has concluded that the current evidence does not provide support for establishing secondary CO standards.

## **CHANGES TO THE CARBON MONOXIDE MONITORING NETWORK**

- EPA is revising minimum requirements for CO monitoring by requiring CO monitors to be sited near roads in certain urban areas.
- EPA is requiring one CO monitor to be collocated with a subset of nitrogen dioxide (NO<sub>2</sub>), monitors that are required as part of the January, 2010 revision to the NAAQS for NO<sub>2</sub>. Specifically, EPA is requiring the collocation of one CO monitor with a “near-road” NO<sub>2</sub> monitor in urban areas having populations of 1 million or more.
  - EPA estimates that the requirement to include CO monitors at these near-road stations would result in the operation of approximately 52 CO monitors within 52 urban areas, as part of the overall CO monitoring network.
  - States may request that an alternative near-road location be used to house a required near-road CO monitor, as approved by the EPA Regional Administrator on a case-by-case basis.
- EPA is specifying that monitors required in CBSAs of 2.5 million or more persons are to be operational by January 1, 2015. Those monitors required in CBSAs having 1 million or more persons are required to be operational by January 1, 2017.
- Nationally, approximately 328 CO monitors were in operation as of May 2011. EPA expects that in most cases states would not need to purchase new monitoring equipment; rather they could move some of their existing CO monitors to the near-road monitoring stations.
- EPA is also providing authority to EPA Regional Administrators to require additional monitors above the minimum required in case-by-case circumstances, for example in unmonitored areas including areas impacted by major stationary CO sources, in downtown urban areas or urban street canyons, or in areas adversely impacted by meteorological and/or topographical influences.

## **IMPLEMENTING THE CARBON MONOXIDE STANDARDS**

- EPA is retaining the current implementation strategy for the CO NAAQS. Existing guidance, regulations, and policies related to the current CO NAAQS continue to be appropriate to assist states and emission sources to implement the requirements for attaining and maintaining the standards.

## **BACKGROUND**

- The Clean Air Act requires EPA to set national ambient air quality standards for “criteria pollutants.” Currently, carbon monoxide and five other major pollutants are criteria pollutants. The others are ozone, lead, sulfur oxides, nitrogen oxides, and

particulate matter. The law also requires EPA every five years to review the standards and, as necessary, to revise them to ensure that they provide the requisite amount of health and environmental protection.

- Currently, there are no areas designated as nonattainment for the CO standards. EPA redesignated the last CO nonattainment area to attainment on September 27, 2010 (See 75 FR 59090).
- EPA first set NAAQS for CO in 1971. For protection of both public health and welfare, EPA set a 8-hour primary standard at 9 ppm and a 1-hour primary standard at 35 ppm. In a review of the standards completed in 1985, EPA revoked the secondary standards (for public welfare) due to a lack of evidence of adverse effects on public welfare at or near ambient concentrations.
- The last review of the CO NAAQS was completed in 1994 and the Agency chose not to revise the standards at that time.
- On January 28, 2011, EPA proposed to retain the existing National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO). EPA accepted comments during the 60 day period after the proposed rule was published in the Federal Register on February 11. EPA also held a public hearing on the proposed rule on February 28, 2011.
- Under a judicial court order, EPA must complete this review of the CO NAAQS by August 12, 2011.
- EPA's actions are consistent with the advice and recommendations of EPA's principal independent science advisors on National Ambient Air Quality Standards: the Clean Air Act Scientific Advisory Committee.

### **FOR MORE INFORMATION**

- To download a copy of the final rules, go to EPA's Web site at: <http://www.epa.gov/air/carbonmonoxide>
- Today's final rule and other background information are also available either electronically at <http://www.regulations.gov>, EPA's electronic public docket and comment system, or in hardcopy at the EPA Docket Center's Public Reading Room.
  - The Public Reading Room is located in the EPA Headquarters, Room Number 3334 in the EPA West Building, located at 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding Federal holidays.
  - Visitors are required to show photographic identification, pass through a metal detector, and sign the EPA visitor log. All visitor materials will be processed

through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.

- Materials for this action can be accessed using Docket ID No. EPA-HQ-OAR-2008-0015.