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# Ambient Air Monitoring: U.S. Environmental Protection Agency Public Notices New Carbon Monoxide and Nitrogen Oxide Reference/Equivalent Methods

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The United States Environmental Protection Agency (“EPA”) in a June 19th Federal Register Notice designated:

- A new reference method for measuring concentrations of carbon monoxide (CO)
- A new equivalent method for measuring concentrations of nitrogen dioxide (NO<sub>2</sub>)

See 82 Fed. Reg. 27816.

Various methods and techniques are used to determine the quantity of a given pollutant in the ambient air and/or the amount of emissions generated by a source. Many gases and vapors cannot be detected by odor or sight. Therefore, determining quantity of a given method in the ambient air is often accomplished by:

- Sampling the air
- Chemical analysis of the sampled air
- Quality assurance to ensure the precision and accuracy of measurement

Sampling air conditions is an important part of the process for determining whether an area is and/or will remain in compliance with the relevant Clean Air Act National Ambient Air Quality Standards (“NAAQS”).

EPA evaluates various methods for monitoring the concentrations of those ambient air pollutants for which the agency has established NAAQS. The agency’s evaluation procedures are found in 40 C.F.R. Part 53.

EPA designates monitoring methods as either reference or equivalent methods (as applicable). Such designations permit their use by states and other agencies for determining compliance with the NAAQS.

A list of all approved reference or equivalent methods is maintained by EPA. The federal agency states in the June 19th notice that the new reference method for CO is an automated method (analyzer) utilizing a measurement principle based on non-dispersive infrared (NDIR) analysis.

The new equivalent method for NO<sub>2</sub> is stated to be an automated method (analyzer) utilizing a measurement principle based on cavity attenuated phase shift (CAPS) spectroscopy.

The two methods are identified as, respectively:

- RFCA-0317-244, “Kentek Mezus Model 310 Carbon Monoxide Analyzer
- EQNA-0217-242, “Ecotech Serinus 60 NO2 CAPS (Cavity Attenuated Phase Shift) Analyzer

[A copy of the June 19th Federal Register Notice can be found here.](#)