



Facts about: Changes to the Twin Cities Metropolitan Area and Wright County Maintenance Plan for Carbon Monoxide

Air Quality/General Information/#1.28/October 2004

Carbon monoxide (CO) is a colorless, odorless gas. About 70 percent of the CO emitted in Minnesota comes from motor vehicles. Other sources include fuel combustion in industrial and other processes. CO levels are typically higher in winter, because cold temperatures make combustion less complete and because winter weather inversions trap CO closer to the ground.

When inhaled, CO replaces oxygen in the bloodstream, thus preventing oxygen from getting to the body's organs and cells. This can result in slowed reflexes, drowsiness and, in high exposures, unconsciousness, and death.

Groups most vulnerable to CO include those with cardiovascular disease, anemia, and pregnant women and their fetuses.

Federal regulatory background

Federal standards, known as National Ambient Air Quality Standards (NAAQS) exist for a number of air pollutants. Carbon monoxide is included in those federal standards.

In the early 90s, when the CO standard was introduced by the U.S. Environmental Protection Agency (EPA), measured CO levels in areas of the Twin Cities exceeded the NAAQS. As a result, the EPA classified the Twin Cities area as being in "nonattainment" with that standard.

Nonattainment is a category meaning that this area did not meet the CO standard for clean air.

The MPCA and the Minnesota legislature addressed the nonattainment status by creating the metro-area Vehicle Inspection Program. The purpose of the program was to find vehicles that emitted too much CO into the air and ensure that they were repaired or removed from the road. Many other cities have used similar programs. By 1999, the program had achieved success and was discontinued with permission of the EPA.

On November 29, 1999, the EPA approved Minnesota's request that the Twin Cities area be re-designated to "attainment" status for CO. This re-designation reflected measured improvements in air quality and was supported by a "maintenance plan" submitted to EPA. This maintenance plan contains the technical rationale and actions designed to keep the area in attainment with the standard. The maintenance plan is part of Minnesota's State Implementation Plan (SIP), meaning that it has been approved through a federal rulemaking process that makes it enforceable by both EPA and the MPCA.

As part of the development of the maintenance plan, the MPCA was required to develop a CO "emissions budget" based upon factors such as current and projected vehicle usage. Federal transportation conformity rules require that emissions from on-road motor vehicles do not exceed the budget.





The budget approved in 1999 was calculated using emissions modeling software known as MOBILE5a. In 2002, the EPA released a revised version of the software, MOBILE6.2. Since EPA requires that the emissions budget reflect the most recent EPA-approved air quality models, states that used MOBILE5a must recalculate the budget using the new model software and submit it to EPA before the end of 2004.

Maintenance plan revision

In partnership with the Metropolitan Council, the MPCA hired a contractor (Sonoma Technology, Inc.) to produce a report with a recalculated budget. Representatives of the Federal Highway Administration, EPA, Metropolitan Council and the Minnesota Department of Transportation were actively involved in this process.

The report is now complete. The MPCA plans to submit the report with its updated emissions budget to EPA for approval. A draft of the submittal was placed on public notice September 9, 2004. A public comment period runs from September 10, 2004, to October 25, 2004.

Public information meeting

A public information meeting will be held October 11, 2004, to provide information about the updated emissions budget and to listen to any public concerns. Comments can be sent after the meeting until 4:30 p.m. October 25th.

The public information meeting will be held:

1-3 p.m.
Monday, October 11, 2004
MPCA's St. Paul office
520 Lafayette Road, St. Paul, Minnesota

Driving directions and parking information are available at:
<http://www.pca.state.mn.us/about/regions/index.html#stpaul>.

Public Comment

Public comment on the draft update to the maintenance plan must be received in writing at the MPCA by 4:30 p.m., October 25, 2004.

Mail comments to:

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